Pacific School of
Religion
Berkeley, Calif.

THE PHILOSOPHY OF JOHN DEWEY

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THE PHILOSOPHY OF JOHN DEWEY

SELECTED AND EDITED BY

JOSEPH RATNER

COLUMBIA UNIVERSITY

> Philosophy recovers itself when it ceases to be a device for dealing with the problems of philosophers and becomes a method, cultivated by philosophers, for dealing with the problems of men.
>
> JOHN DEWEY.

NEW YORK
HENRY HOLT AND COMPANY

Pacific School of Religion
Berkeley, Cal.
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Pacific College - M. B. Seminary
Fresno, Calif. 93702

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PRINTED IN THE
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PREFACE

The purpose of this volume is to help make Mr. John Dewey's philosophy accessible to the lay reader. Very many people are familiar with Mr. Dewey's philosophy of education and morals, with his views on social and political affairs, but very few people, comparatively speaking, are familiar with his general philosophic principles and how the rest of his work derives from them. This is largely due to the fact that to gain a unified knowledge of Mr. Dewey's thought it is necessary to read a great many of his writings, because Mr. Dewey in his separate volumes deals, for the most part, with only one phase of his thought. The material in this volume has been taken from a wide variety of sources, extending over a long series of years; and it constitutes a unified, and comprehensive outline of the total range of Mr. Dewey's philosophy. This volume is especially designed to help the lay reader understand Mr. Dewey's basic philosophic principles, not only in themselves, but in their manifold relations to the rest of his work.

Contemporary philosophy is exceedingly controversial; and in this respect, Mr. Dewey's writings are quite contemporary. Their controversial character is undoubtedly responsible, in significant measure, for the reputation they have won of being extremely difficult to understand. To one who is not a specialist in the field, controversies are of all things the most forbidding. In this volume, all of the obscuring controversial material has been omitted, and the selections have been arranged so that Mr. Dewey's philosophy stands plainly and systematically revealed.

To make clear what are Mr. Dewey's philosophic principles, and to show to what results they have been applied in various fields, it was necessary to arrange the selections in the order demanded by the logical development of ideas and the natural relationships of the various branches of philosophy to one another. The reader will find, accordingly, that the first chapters are devoted to the more recondite and more difficult branches of Mr. Dewey's philosophy—his philosophic method, metaphysics, and logic; and only after these chapters will the reader find treated what is of more widespread human concern—Mr. Dewey's doctrines on psychology and ethics, on education and politics, art and religion. This order of presentation has been followed not out of disdain for the natural interests of the lay reader, but out of a sincere desire to fulfil the fundamental purpose of this book. There is no reason, however, why the reader should feel constrained by the necessities of logical and systematic presentation. The reader should follow, at least at first, the lead of his own bent. It may well be that some will derive most benefit if they first read this book backwards. It would be a pity if such readers did not do so.

Here and there it was necessary to make slight verbal changes in the original text so that the transition from one selection to another may be natural and smooth. It was found advisable, too, to change the paragraphing in some cases. It was not necessary, though, to disfigure the text with customary editorial notations, because these changes were approved by Mr. Dewey.

This volume would have been impossible without the generous permission of the Open Court Publishing Company to reprint selections from *Experience and Nature.* In granting permission to reprint a large number of quotations from so recent a book, the Open Court Publishing Company again demonstrated their singular devotion to the cause of spreading philosophical knowledge. The author and editor both wish to express to the Open Court Publishing Company their appreciation and thanks. Many thanks are also due—The Directors of the Chicago University Press for selections from *Essays in Experimental Logic*, *School and Society*, and *Chicago University*

Decennial Publications, MacMillan and Company for selections from *Democracy and Education*, D. C. Heath and Company for selections from *How We Think*, Longmans, Green and Company for selections from *Essays in Honor of William James*, Houghton Mifflin Company for selections from *Moral Principles in Education*, Henry Holt and Company for selections from *Human Nature and Conduct*, *Reconstruction in Philosophy*, *Creative Intelligence*, *The Public and Its Problems*, *Influence of Darwin on Philosophy and Other Essays*, *Ethics* (Dewey and Tufts): the Editors of *The Journal of Philosophy*, *The International Journal of Ethics*, *The Hibbert Journal*, *The Bulletin of the New York Academy of Medicine*, *The Journal of the Barnes Foundation*, *The Proceedings of the Sixth International Congress of Philosophy* for selections from articles which appeared originally in their respective publications.

JOSEPH RATNER.

April 23, 1928.

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THE PHILOSOPHY OF JOHN DEWEY

CHAPTER ONE

PHILOSOPHIC METHOD

THE METHODS OF PHILOSOPHY[1]

THERE are two avenues of approach to the goal of philosophy. We may begin with experience in gross, experience in its primary and crude forms, and by means of its distinguishing features and its distinctive trends, note something of the constitution of the world which generates and maintains it. Or, we may begin with refined selective products, the most authentic statements of commended methods of science, and work from them back to the primary facts of life. The two methods differ in starting point and direction, but not in objective or eventual content. Those who start with coarse, everyday experience must bear in mind the findings of the most competent knowledge, and those who start from the latter must somehow journey back to the homely facts of daily existence.

Each way of approach has its advantages and its dangers. Those who are able to pursue the road of that technical and refined knowledge called science are fortunate. But the history of thought shows how easy it is for them to forget that science is after all an art, a matter of perfected skill in conducting inquiry; while it reveals that those who are not directly engaged in the use of this art readily take science to be something finished, absolute in itself, instead of the result of a certain technique. Consequently "scientific" philosophies have over and over again made the science of their own day the premises of philosophy only to have them undermined by later science. And even when reasonably sure foundations are provided by the science of a period, a philosopher has no guarantee save his own acumen and honesty that he will not employ them in such a way as to get lost on a bypath. Professed scientific philosophers have been wont to employ the remoter and refinished products of science in ways which deny, discount or pervert the obvious and immediate facts of gross experience, unmindful that thereby philosophy itself commits suicide.

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[1] From *Experience and Nature*, pp. 2-6.

On the other hand, the method which sets out with macroscopic experience requires unusual candor and patience. The subject-matter of science, for better or worse, is at least "there"; it is a definite body of facts and principles summed up in books and having a kind of independent external existence. But coarse and vital experience is Protean; a thing of moods and tenses. To seize and report it is the task of an artist as well as of an informed technician. As the history of thought shows, the usual thing, a thing so usual as probably to be in some measure inevitable, is for the philosopher to mix with his reports of direct experience interpretations of it made by previous thinkers. Too often, indeed, the professed empiricist only substitutes a dialectical development of some notion about experience for an analysis of experience as it is humanly lived.

The philosophy which since the seventeenth century has almost achieved a monopoly of the title "empiricism" strikingly illustrates this danger. Not safely can an "ism" be made out of experience. For any interpretation of experience must perforce simplify; simplifications tend in a particular direction; and the direction may be set by custom which one assumes to be natural simply because it is traditionally congenial. For at least two hundred years many interests, religious, industrial, political, have centered about the status of the individual. Hence the drift in all systems save the classic traditional school, has been to think in ways that make individuality something isolated as well as central. When the notion of experience is introduced, who is not familiar with the query, uttered with a crushingly triumphant tone, "*Whose* experience?" The implication is that experience is not only always somebody's, but that the peculiar nature of "somebody" infects experience so pervasively that experience is *merely* somebody's and hence of nobody and nothing else.

The dialectical situation which results may be illustrated by a quotation which is selected because it is typical of much contemporary philosophizing. "When I look at a chair, I say I experience it. But what I actually experience is only a very few of the elements that go to make up a chair, namely, that color that belongs to the chair under these particular conditions of light, the shape which the chair displays when viewed from this angle, etc." The man who has the experience, as distinct from a philosopher theorizing about it, would probably say that he experienced the chair most fully not when looking at it but when meaning to sit down in it, and that he can mean to sit down in it precisely because his experience is *not* limited to color under specific conditions of light, and angular shape. He would probably say that when he looks at it, instead of experiencing something less than a chair he experiences a good deal more than a chair: that he lays hold of a wide spatial context, such as the room where the chair is, and a spread of its history, including the chair's period, price paid for it, consequences, public as well as personal, which flow from its use as household furniture, and so on.

Such remarks as these prove nothing. But they suggest how far away from the everyday sense of experience a certain kind of philosophic discourse, although nominally experiential, has wandered. Interesting results can be had by developing dialectically such a notion of experience as is contained in the quotation; problems can be made to emerge which exercise the ingenuity of the theorizer, and which convince many a student that he gets nearer to the reality of experience the further away he gets from all the experience he has ever had. The exercise would be harmless, were it not finally forgotten that the conclusions reached have but a dialectical status, being an elaboration of premises arrived at by technical analysis from a specialized physiological point of view. Consequently, I would rather take the behavior of the dog of Odysseus upon his master's return as an example of the sort of thing experience is for the philosopher than trust to such statements. A physiologist may for his special purpose reduce Othello's perception of a handkerchief to simple elements of color under certain conditions of light and shapes seen under certain angular conditions of vision. But the actual experience was charged with history and prophecy; full of love, jealousy and villainy, fulfilling past human relationships and moving fatally to tragic destiny.

The excuse for saying obvious things is that much that now passes for empiricism is but a dialectical elaboration of data taken from physiology, so that it is necessary for any one, who seriously sets out to philosophize empirically, to recall to attention that he is talking about the sort of thing that the unsophisticated man calls experience, the life he has led and undergone in the world of persons and things. Otherwise we get a stencilled stereotype in two dimensions and in black and white instead of the solid and many colored play of activities and sufferings which is the philosopher's real datum.

THE TRULY EMPIRICAL METHOD [2]

The way of approach that sets out from that which is closest at hand, instead of from refined products of science no more signifies beginning with the results of psychological science than it does with those of physical science. Indeed the former material is further away from direct experience than that of physics. It signifies beginning back of any science, with experience in its gross and macroscopic traits. Science will then be of interest as one of the phases of human experience, but intrinsically no more so than magic, myth, politics, painting, poetry and penitentiaries. The domination of men by reverie and desire is as pertinent for the philosophic theory of nature as is mathematical physics; imagination as much to be noted as refined observation. It is a fact of *experience* that some men, as Santayana has pointed out concerning Shelley, are immune to "experience" retaining intact the attitude of childhood. And for a thoroughgoing empiricist the most transcendental of philosophies is an empirical phenomenon. It may not prove intellectually what its originator supposed it to demonstrate, but it shows something about experience, something possibly of immense value for a subsequent interpretation of nature in the light of experience.

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[2] From *Experience and Nature*, pp. 6-9; 15; 18-19; 35-38.

Hence it is that experience is something quite other than "consciousness," that is, that which appears qualitatively and focally at a particular moment. The common man does not need to be told that ignorance is one of the chief features of experience; so are habits skilled and certain in operation so that we abandon ourselves to them without consciousness. Yet ignorance, habit, fatal implication in the remote, are just the things which professed empiricism, with its reduction of experience to states of consciousness, denies to experience. It is important for a theory of experience to know that under certain circumstances men prize the distinct and clearly evident. But it is no more important than it is to know that under other circumstances twilight, the vague, dark and mysterious flourish. Because intellectual crimes have been committed in the name of the subconscious there is no reason for refusing to admit that what is not explicitly present makes up a vastly greater part of experience than does the conscious field to which thinkers have so devoted themselves.

When disease or religion or love, or knowledge itself is experienced, forces and potential consequences are implicated that are neither directly present nor logically implied. They are "in" experience quite as truly as are present discomforts and exaltations. Considering the rôle which anticipation and memory of death have played in human life, from religion to insurance companies, what can be said of a theory which defines experience in such a way that it logically follows that death is never a matter of experience? Experience is no stream, even though the stream of feelings and ideas that flows upon its surface is the part which philosophers love to traverse. Experience includes the enduring banks of natural constitution and acquired habit as well as the stream. The flying moment is sustained by an atmosphere that does not fly, even when it most vibrates.

When we say that experience is one point of approach to an account of the world in which we live, we mean then by experience something at least as wide and deep and full as all history on this earth, a history which, since history does not occur in the void, includes the earth and the physical relatives of man. When we assimilate experience to history rather than to the physiology of sensations, we note that history denotes both objective conditions, forces, events and also the human record and estimate of these events. Similarly experience denotes whatever is experienced, whatever is undergone and tried, and also processes of experiencing. As it is the essence of "history" to have meanings termed both subjective and objective, so with "experience." As William James has said, it is a "double-barrelled" fact. Without sun, moon and stars, mountains and rivers, forests and mines, soil, rain and wind, history would not be. These things are not just external conditions of history and experience; they are integral with them. But also without the human attitude and interest, without record and interpretation, these things would not be historical.

However, when a thinker ventures to begin with things which are too crude and coarse to come within the ken of intellectualists, he finds, moreover, that as an empiricist he is not obliged to face the miscellaneous world *en masse*. Things are pointed to in kinds, possessed of order and arrangement. Pre-philosophic selections and arrangings may not be final for reflective thought, but they are significant for it. The bias they manifest is not that of the closet or library, but of men who have responded to the one-sided pressures of natural events. The key to the trends of nature is found in the adjectives that are commonly prefixed to experience. Experience is political, religious, esthetic, industrial, intellectual, mine, yours.

The adjectives denote that things present themselves in characteristic contexts, with different savors, colors, weights, tempos and directions. Experience as method warns us to give impartial attention to all of these diversifications. Non-empirical method sets out with the assumption that some one of these groupings of things is privileged; that it is supreme of its own right, that it furnishes a standard by which to measure the significance and real quality of everything else. The sequel is then but a dialectic. Philosophers deduce results in accordance with what is logically implied in their own choice of standard and measure.

A genuine empiricism will set out with all the adjectival groupings of macroscopic experience, starting from them as all upon the same level of worth; subsequent inquiry can review the starting point when it is found necessary. One can be insane without knowing he is insane and one may know insanity without being crazy; indeed absence of the direct experience is said to be an indispensable condition of study of insanity. Adequate recognition of the implications of such a fact as this might almost be said to be the chief contribution which empirical method has to make to philosophy.

For it indicates that *being* and *having* things in ways other than knowing them, in ways never identical with knowing them, exist, and are preconditions of reflection and knowledge. *Being* angry, stupid, wise, inquiring; *having* sugar, the light of day, money, houses and lands, friends, laws, masters, subjects, pain and joy, occur in dimensions incommensurable to knowing these things which we are and have and use, and which have and use us. Their existence is unique, and, strictly speaking, indescribable; they can *only be* and be *had*, and then be pointed to in reflection. In the proper sense of the word, their existence is absolute, being qualitative. All cognitive experience must start from and must terminate in being and having things in just such unique, irreparable and compelling ways. And until this fact is a commonplace in philosophy, the notion of experience will not be a truism for philosophers.

The adoption of an empirical method is no guarantee that all the things relevant to any particular conclusion will actually be found or pointed to, or that when found they will be correctly shown or communicated. But the empirical method points out when and where and how things of a designated description have been arrived at. It places before others a map of the road that has been travelled; they may accordingly, if they will, retravel the road to inspect the landscape for themselves. Thus the findings of one may be rectified and extended by the findings of others, with as much assurance as is humanly possible of confirmation, extension and rectification. The adoption of empirical, or denotative, method would thus procure for philosophic reflection something of that cooperative tendency toward consensus which marks inquiry in the natural sciences. The scientific investigator convinces others not by the plausibility of his definitions and the cogency of his dialectic, but by placing before them the specified course of experiences of searchings, doings and findings in consequence of which certain things have been found. His appeal is for others to traverse a similar course, so as to see how what they find corresponds with his report.

Dialectic thereby itself receives a designated status and office. As it occurs in philosophic thought its dependence upon an original act of selective choice is often not avowed. Its premises are alleged to be indubitable and self-guaranteeing. Honest empirical method will state when and where and why the act of selection took place, and thus enable others to repeat it and test its worth. Selective choice, denoted as an empirical event, will reveal the basis and bearing of intellectual simplifications; they then cease to be of such a self-enclosed nature as to be affairs only of opinion and argument, admitting no alternatives save complete acceptance or rejection. Choice that is disguised or denied is the source of those astounding differences of philosophic belief that startle the beginner and that become the plaything of the expert. Choice that is avowed is an experiment to be tried on its merits and tested by its results. Under all the captions that are called immediate knowledge, or self-sufficient certitude of belief, whether logical, esthetic or epistemological, there is something selected for a purpose, and hence not simple, not self-evident and not intrinsically eulogizable. State the purpose so that it may be re-experienced, and its value and the pertinency of selection made in its behalf may be tested. The purport of thinking, scientific and philosophic, is not to eliminate choice but to render it less arbitrary, and more significant. It loses its arbitrary character when its quality and consequences are such as to commend themselves to the reflection of others after they have betaken themselves to the situations indicated; it becomes significant when reason for the choice is found to be weighty, and its consequences momentous. This statement is not a commendation of the will to believe. It is not a statement that we *should* choose, or that *some* choices are self-justifying. It is a statement that wherever reflection occurs and intelligence operates, a selective discrimination *does* occur. The justification of a choice is wholly another matter; it is extrinsic. It depends upon the extent in which observation, memory and forethought have entered into making the choice, and upon the consequences that flow from it. When choice is avowed, others can repeat the course of the experience; it is an experiment to be tried, not an automatic safety device.

This particular affair is referred to here not so much as matter of doctrine as to afford an illustration of the nature of empirical method. Truth or falsity depends upon what others find when they warily perform the experiment of observing reflective events. An empirical finding is refuted not by denial that one finds things to be thus and so, but by giving directions for a course of experience that results in finding its opposite to be the case. To convince of error as well as to lead to truth is to assist another to see and find something which he hitherto has failed to find and recognize. All of the wit and subtlety of reflection and of dialectic find scope in the elaboration and conveying of directions that intelligibly point out a course to be followed. Every system of philosophy presents the consequences of some such experiment. As experiments, each has contributed something of worth to our observation of the events and qualities of experienceable objects. Some harsh criticisms of traditional philosophy have already been suggested; others will doubtless follow. But the criticism is not directed at the experiments; it is aimed at the denial to them by the philosophic tradition of selective experimental quality, a denial which has isolated them from their actual context and function, and has thereby converted potential illuminations into arbitrary assertions.

OBJECTION TO THIS EMPIRICAL METHOD[3]

There is an obvious retort to this plea to take the conception of experience with the utmost of naïveté and catholicity, as the common man takes it when he experiences illness and prosperity, love, marriage, and death. The objection is that experience is then made so inclusive and varied as to be useless for philosophic purposes. Experience, as we are here told to conceive it, includes just everything and anything, actual or potential, that we think of and talk about. So we might just as well start with everything and anything and drop out the idea and word, "experience." The traditional notion of experience, which has been disowned, may be erroneous. But at least it denotes something specific, differential; something which may be set in contrast with other things and may thus serve as a principle of criticism and estimate. But the whole wide universe of fact and dream, of event, act, desire, fancy and meanings, valid or invalid, can be set in contrast to nothing. And if what has been said is taken literally, "experience" denotes just this wide universe.

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[3] From *Experience and Nature*, pp. 9-10.

Here is indeed a vulnerable spot in experience as a guiding method for philosophy. It is presented to us as a catholic and innocent neutral, free from guile and partisanship. But then unwittingly there is substituted for this free, full, unbiased and pliable companion of us all, a simplified and selected character, which is already pointed in a special direction and loaded with preferred conclusions. So often does this occur, that one does well to exercise a wary scepticism whenever an inquirer insistently professes that *he* keeps to an empirical method. And when this biased course (easy to fall into as the history of thought testifies) is avoided, the alternative seems to be everything without discrimination, so that experience ceases to have a meaning.

OBJECTION ANSWERED [4]

The objection uncovers the exact meaning of a truly empirical method. For it reveals the fact that experience for philosophy is method, not distinctive subject-matter. And it also reveals the sort of method that philosophy needs. Experience includes dreams, insanity, illness, death, labor, war, confusion, ambiguity, lies and error; it includes transcendental systems as well as empirical ones; magic and superstition as well as science. It includes that bent which keeps one from learning from experience as well as that skill which fastens upon its faint hints. This fact convicts upon sight every philosophy that professes to be empirical and yet assures us that some especial subject-matter is experience and some other not.

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[4] From *Experience and Nature*, pp. 10-12.

The value of experience as method in philosophy is that it compels us to note that *denotation* comes first and last, so that to settle any discussion, to still any doubt, to answer any question, we must go to some thing pointed to, denoted, and find our answer in that thing. As method it has a contrast which it does not possess as subject matter, that with "rationalism," understanding by rationalism method which assumes the primacy and ultimacy of purely logical thought and its findings. There are two kinds of demonstration: that of logical reasoning from premises assumed to possess logical completeness, and that of showing, pointing, coming upon a thing. The latter method is that which the word experience sums up, generalizes, makes universal and ulterior. To say that the right method is one of pointing and showing, not of meeting intellectual requirements or logical derivation from rational ideas, does not, although it is non-rational, imply a preference for irrationality. For one of the things that is pointed out, found and shown, is deduction, and the logic that governs it. But these things have also to be found and shown, and their authority rests upon the perceived outcome of this empirical denotation. The utmost in rationality has a sanction and a position that, according to taste, may be called sub-rational or supra-rational.

The value, I say, of the notion of experience for philosophy is that it asserts the finality and comprehensiveness of the method of pointing, finding, showing, and the necessity of seeing what is pointed to and accepting what is found in good faith and without discount. Were the denotative method universally followed by philosophers, then the word and the notion of experience might be discarded; it would be superfluous, for we should be in possession of everything it stands for. But as long as men prefer in philosophy (as they so long preferred in science) to define and envisage "reality" according to esthetic, moral or logical canons, we need the notion of experience to remind us that "reality" includes whatever is denotatively found.

When the varied constituents of the wide universe, the unfavorable, the precarious, uncertain, irrational, hateful, receive the same attention that is accorded the noble, honorable and true, then philosophy may conceivably dispense with the conception of experience. But till that day arrives, we need a cautionary and directive word, like experience, to remind us that the world which is lived, suffered and enjoyed as well as logically thought of, has the last word in all human inquiries and surmises. This is a doctrine of humility; but it is also a doctrine of direction. For it tells us to open the eyes and ears of the mind, to be sensitive to all the varied phases of life and history. Nothing is more ironical than that philosophers who have so professed universality have so often been one-sided specialists, confined to that which is authentically and surely *known*, ignoring ignorance, error, folly and the common enjoyments and adornments of life; disposing of these by regarding them as due to our "finite" natures—a blest word that does for moderns what "non-being" was made to do for the Greeks.

THE VALUE OF THE TRULY EMPIRICAL METHOD [5]

The method of experience in the first place guards us against accepting as original, primitive and simple, distinctions that have become familiar to us, that are a customary part of our intellectual inheritance—such distinctions for example as that of the physical and mental. It warns us that all intellectual terms are the products of discrimination and classification, and that we must, as philosophers, go back to the primitive situations of life that antecede and generate these reflective interpretations, so that we re-live former processes of interpretation in a wary manner, with eyes constantly upon the things to which they refer. Thus empiricism is the truly critical method; it puts us knowingly and cautiously through steps which were first taken uncritically, and exposed to all kinds of adventitious influence.

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[5] From *Experience and Nature*, pp. 30-33.

In the second place, the notion of experience reminds us that, prior to philosophic reflection, objects have fallen into certain groupings, designated by the adjectives we readily prefix to the word experience:—adjectives like moral, esthetic, intellectual, religious, personal, political. The notion thus warns us against the tradition which makes the objects of a certain kind of experience, the cognitive, the fixed standard for estimating the "reality" and import of all other kinds of things. It cautions us against transferring the qualities characteristic of objects in a certain mode of organization to objects in other modes. Knowledge itself must be experienced; it must be had, possessed, enacted, before it can be known, and the having of it is no more identical with knowing it, or knowing it with having it, than is the case with anger, being ill, or being the possessor by inheritance of an estate. We have to identify cases of knowing by direct denotation before we can have a reflective experience of them, just as we do with good and bad, red and green, sweet and sour.

In the third place, the notion cautions us that we must begin with things in their complex entanglements rather than with simplifications made for the purpose of effective judgment and action; whether the purpose is economy or dialectical, esthetic or moral. The simplifications of philosophic data have been largely determined by apologetic methods, that is by interest in dignifying certain kinds and phases of things. So strong is this tendency that if a philosopher points to any particular thing as important enough to demand notation, it is practically certain that some critic will shift the issue from whether the denoted thing is found to be as he has described it to be, to the question of value. For example, I have asserted that all denoted things possess temporal quality. It is reasonably certain that this statement will be taken by some critic to indicate a preference on my part for change over permanence, an implied statement that it is *better* that things should be in flux. It has been stated that objects are primarily denoted in their practical relationships, as things of doing, suffering, contact, possession and use. Instead of being discussed as a question of denotation, the philosophic tradition is such that the statement will be taken as an eulogy; as implying that practice is better than theory. It is then "refuted" by pointing out the superior charm of the contemplative life.

This bias is so strong and so persistent that it testifies, I suppose, to a fact of importance, to the fact that most philosophical simplifications are due to a moral interest which is ignored and denied. Our constant and inalienable concern is with good and bad, prosperity and failure, and hence with choice. We are constructed to think in terms of value, of bearing upon welfare. The ideal of welfare varies, but the influence of interest in it is pervasive and inescapable. In a vital, though not the conventional, sense all men think with a moral bias and concern, the "immoral" man as truly as the righteous man; wicked and just men being characterized by bents toward different kinds of things as good. Now this fact seems to me of great importance for philosophy; it indicates that in some sense all philosophy is a branch of morals. But acknowledgment that the ultimate ground of reflection is to enable men better to make choice of things as good and bad is in truth the opposite attitude from that which immediately converts traits of existence into moral qualities, and which transforms preferred qualities into properties of true and real being. For the former concerns action to be performed, the direction of desire, purpose and endeavor. The latter is an affair of existence as it is found to be; material, it may be, of choice and action, but material, not goal or finished object.

SUMMARY[5]

All philosophies employ empirical subject-matter, even the most transcendental; there is nothing else for them to go by. But in ignoring the kind of empirical situation to which their themes pertain and in failing to supply directions for experimental pointing and searching they become non-empirical. Hence it may be asserted that the final issue of empirical method is whether the guide and standard of beliefs and conduct lies within or without the *shareable* situations of life. The ultimate accusation levelled against professedly non-empirical philosophies is that in casting aspersion upon the events and objects of experience, they deny the power of common life to develop its own regulative methods and to furnish from within itself adequate goals, ideals, and criteria. Thus in effect they claim a private access to truth and deprive the things of common experience of the enlightenment and guidance that philosophy might otherwise derive from them. The transcendentalist has conspired with his arch-enemy, the sensualist, to narrow the acknowledged subject-matter of experience and to lessen its potencies for a wider and directed reflective choice. Respect for experience is respect for its possibilities in thought and knowledge as well as an enforced attention to its joys and sorrows. Intellectual piety toward experience is a precondition of the direction of life and of tolerant and generous cooperation among men. Respect for the things of experience alone brings with it such a respect for others, the centres of experience, as is free from patronage, domination and the will to impose.

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[5] From *Experience and Nature*, pp. 38-39.

CHAPTER TWO

FOUNDATIONS OF A NATURALISTIC METAPHYSICS

REFLECTION A GUIDE TO NATURE[1]

A NATURALISTIC metaphysics is bound to consider reflection as itself a natural event occurring *within* nature because of traits of the latter. It is bound to inference from the empirical traits of thinking in precisely the same way as the sciences make inferences from the happening of suns, radio-activity, thunder-storms or any other natural event. Traits of reflection are as truly indicative or evidential of the traits of *other* things as are the traits of these events. A theory of the nature of the occurrence and career of the sun reached by denial of the obvious traits of the sun, or by denial that these traits are so connected with the traits of other natural events that they can be used as evidence concerning the nature of these other things, would hardly possess scientific standing. Yet philosophers, and strangely enough philosophers who call themselves realists, have constantly held that the traits which are characteristic of thinking, namely, uncertainty, ambiguity, alternatives, inquiring, search, selection, experimental reshaping of external conditions, do not possess the same existential character as do the objects of valid knowledge. They have denied that these traits are evidential of the character of the world within which thinking occurs. They have not, as realists, asserted that these traits are mere appearances; but they have often asserted and implied that such things are only personal or psychological in contrast with a world of objective nature. But the interests of empirical and denotative method and of naturalistic metaphysics wholly coincide. The world must actually be such as to generate ignorance and inquiry; doubt and hypothesis, trial and temporal conclusions; the latter being such that they develop out of existences which while wholly "real" are not as satisfactory, as good, or as significant, as those into which they are eventually re-organized. The ultimate evidence of genuine hazard, contingency, irregularity and indeterminateness in nature is thus found in the occurrence of thinking. The traits of natural existence which generate the fears and adorations of superstitious barbarians generate the scientific procedures of disciplined civilization. The superiority of the latter does not consist in the fact that they are based on "real" existence, while the former depend wholly upon a human nature different from nature in general. It consists in the fact that scientific inquiries reach *objects* which are better, because reached by method which controls them and which adds greater control to life itself, method which mitigates accident, turns contingency to account, and releases thought and other forms of endeavor.

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[1] From *Experience and Nature*, pp. 68-70.

THE PRECARIOUS AND STABLE IN NATURE [2]

Upon their surface, the reports of the world which form our different philosophies are various to the point of stark contrariness. They range from spiritualism to materialism, from absolutism to relativistic phenomenalism, from transcendentalism to positivism, from rationalism to sensationalism, from idealism to realism, from subjectivism to bald objectivism, from Platonic realism to nominalism. The array of contradictions is so imposing as to suggest to sceptics that the mind of man has tackled an impossible job, or that philosophers have abandoned themselves to vagary. These radical oppositions in philosophers suggest however another consideration. They suggest that all their different philosophies have a common premise, and that their diversity is due to *acceptance* of a common premise. Variant philosophies may be looked at as different ways of supplying recipes for denying to the universe the character of contingency which it possesses so integrally that its denial leaves the reflecting mind without a clew, and puts subsequent philosophising at the mercy of temperament, interest and local surroundings.

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[2] From *Experience and Nature*, pp. 46-48.

Quarrels among conflicting types of philosophy are thus family quarrels. They go on within the limits of a too domestic circle, and can be settled only by venturing further afield, and out of doors. Concerned with imputing complete, finished and sure character to the world of real existence, even if things have to be broken into two disconnected pieces in order to accomplish the result, the character desiderated can plausibly be found in reason or in mechanism; in rational conceptions like those of mathematics, or brute things like sensory data; in atoms or in essences; in consciousness or in a physical externality which forces and overrides consciousness.

As against this common identification of reality with what is sure, regular and finished, experience in unsophisticated forms gives evidence of a different world and points to a different metaphysics. We live in a world which is an impressive and irresistible mixture of sufficiencies, tight completenesses, order, recurrences which make possible prediction and control, and singularities, ambiguities, uncertain possibilities, processes going on to consequences as yet indeterminate. They are mixed not mechanically but vitally like the wheat and tares of the parable. We may recognize them separately but we cannot divide them, for unlike wheat and tares they grow from the same root. Qualities have defects as necessary conditions of their excellencies; the instrumentalities of truth are the causes of error; change gives meaning to permanence and recurrence makes novelty possible. A world that was wholly risky would be a world in which adventure is impossible, and only a living world can include death. Such facts have been celebrated by thinkers like Heracleitus and Laotze; they have been greeted by theologians as furnishing occasions for exercise of divine grace; they have been elaborately formulated by various schools under a principle of relativity, so defined as to become itself final and absolute. But they have rarely been frankly recognized as fundamentally significant for the formation of a naturalistic metaphysics.

THE TEMPORAL QUALITY OF EXISTENCE [3]

The value of the notion of experience for philosophic reflection is that it denotes both the field, the sun and clouds and rain, seeds and harvest, and the man who labors, who plans, invents, uses, suffers, and enjoys. Experience denotes what is experienced, the world of events and persons; and it denotes that world caught up into experiencing, the career and destiny of mankind.

The denotations that constitute experience point to history, to temporal process. The technically expert are aware how much ingenuity has been spent upon discovering something which shall be wholly present, so completely present as to exclude movement and change. There are *phases* of things to which this search is pertinent. There are moments of consummation when before and after are legitimately forgotten, and the sole stake of man is in the present. But even such objects are discovered to arise as culminations of processes, and to be in turn transitive and effective, while they may be also predictive or cognitively significant. The legitimacy of timeless absorption is no argument in behalf of the legitimacy of timeless objects. Experience is history; and the *taking* of some objects as final is itself an episode in history. The testimony of an absorbed consciousness that at last it rests upon something superior to the vicissitudes of time is of no more cognitive worth than the testimony of any other purely immediate consciousness. That is, it is not testimony at all, it is a having, not a knowing. And hence when treated as cognition, it is never natural and naïve; it is suborned in the interest of a sophisticated metaphysics. There is no testimony in such moments just because of absorption in the immediate qualities of the object. There is enjoyment and possession, with no need of thought as to how the object came or whither it is going, what evidence it gives. And when it turns evidence, it always testifies to an existence which is partial or particular, and local.

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[3] From *Experience and Nature*, pp. 28-30; 70-71.

The assumption that the ultimate and the immediate object is timeless is responsible for one of the insoluble problems of certain types of philosophy. The past and future are rendered purely inferential, speculative, something to be reached by pure faith. But in fact anything denoted is found to have temporal quality and reference; it has movement from and towards *within* it; it is marked by waxings and wanings. The translation of temporal quality into an *order* of time is an intellectual arrangement, and is subject to doubt and error. Although pastness and futurity are qualities of everything present, such presence does not guarantee the date at which Columbus discovered America nor when the next eclipse of the moon will occur. For these things are matters that require measurements, comparisons, connection with remote occurrences. But objects of present experience have the actuality of a temporal procession, and accordingly reflection may assign things an order of succession within something which non-reflectively exists and is had.

The conjunction of problematic and determinate characters in nature renders every existence, as well as every idea and human act, an experiment in fact, even though not in design. To be intelligently experimental is but to be conscious of this intersection of natural conditions so as to profit by it instead of being at its mercy. The Christian idea of this world and this life as a probation is a kind of distorted recognition of the situation; distorted because it applied wholesale to one stretch of existence in contrast with another, regarded as original and final. But in truth anything which can exist at any place and at any time occurs subject to tests imposed upon it by surroundings, which are only in part compatible and reinforcing. These surroundings test its strength and measure its endurance. As we can discourse of change only in terms of velocity and acceleration which involve relations to other things, so assertion of the permanent and enduring is comparative. The stablest thing we can speak of is not free from conditions set to it by other things. That even the solid earth mountains, the emblems of constancy, appear and disappear like the clouds is an old theme of moralists and poets. The fixed and unchanged being of the Democritean atom is now reported by inquirers to possess some of the traits of his non-being, and to embody a temporary equilibrium in the economy of nature's compromises and adjustments. A thing may endure *secula seculorum* and yet not be everlasting; it will crumble before the gnawing tooth of time, as it exceeds a certain measure. Every existence is an event.

THE RELATION OF PROCESS TO STRUCTURE[4]

This fact—that every existence is an event—is nothing at which to repine and nothing to gloat over. It is something to be noted and used. If it is discomfiting when applied to good things, to our friends, possessions and precious selves, it is consoling also to know that no evil endures forever; that the longest lane turns sometime, and that the memory of loss of nearest and dearest grows dim in time. The eventful character of all existences is no reason for consigning them to the realm of mere appearance any more than it is a reason for idealizing flux into a deity. The important thing is measure, relation, ratio, knowledge of the comparative tempos of change. In mathematics some variables are constants in some problems; so it is in nature and life. The rate of change of some things is so slow, or is so rhythmic, that these changes have all the advantages of stability in dealing with more transitory and irregular happenings—if we know enough.

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[4] From *Experience and Nature*, pp. 71-74.

Indeed, if any one thing that concerns us is subject to change, it is fortunate that all other things change. A thing "absolutely" stable and unchangeable would be out of the range of the principle of action and reaction, of resistance and leverage as well as of friction. Here it would have no applicability, no potentiality of use as measure and control of other events. To designate the slower and the regular rhythmic events structure, and more rapid and irregular ones process, is sound practical sense. It expresses the function of one in respect to the other.

But spiritualistic idealism and materialism alike treat this relational and functional distinction as something fixed and absolute. One doctrine finds structure in a framework of ideal forms, the other finds it in matter. They agree in supposing that structure has some superlative reality. This supposition is another form taken by preference for the stable over the precarious and uncompleted. The fact is that all structure is structure *of* something; anything defined as structure is a character of *events*, not something intrinsic and *per se*. A set of traits is called structure, because of its limiting function in relation to other traits of events. A house has a structure; in comparison with the disintegration and collapse that would occur without its presence, this structure is fixed. Yet it is not something external to which the changes involved in building and using the house have to submit. It is rather an arrangement of changing events such that properties which change slowly, limit and direct a series of quick changes and give them an order which they do not otherwise possess. Structure is constancy of means, of things used for consequences, not of things taken by themselves or absolutely. Structure is what makes construction possible and cannot be discovered or defined except in some realized construction, construction being, of course, an evident order of changes. The isolation of structure from the changes whose stable ordering it is, renders it mysterious—something that is metaphysical in the popular sense of the word, a kind of ghostly queerness.

The "matter" of materialists and the "spirit" of idealists is a creature similar to the constitution of the United States in the minds of unimaginative persons. Obviously the real constitution is certain basic relationships among the activities of the citizens of the country; it is a property or phase of these processes, so connected with them as to influence their rate and direction of change. But by literalists it is often conceived of as something external to them; in itself fixed, a rigid framework to which *all* changes must accommodate themselves. Similarly what we call matter is that character of natural events which is so tied up with changes that are sufficiently rapid to be perceptible as to give the latter a characteristic rhythmic order, the causal sequence. It is no cause or source of events or processes; no absolute monarch; no principle of explanation; no substance behind or underlying changes—save in that sense of substance in which a man well fortified with this world's goods, and hence able to maintain himself through vicissitudes of surroundings, is a man of substance. The name designates a character in operation, not an entity.

That structure, whether of the kind called material or of the kind summed up in the word mental, is stable or permanent relationally and in its office, may be shown in another way. There is no action without reaction; there is no exclusively one-way exercise of conditioning power, no mode of regulation that operates wholly from above to below or from within outwards or from without inwards. Whatever influences the changes of other things is itself changed. The idea of an activity proceeding only in one direction, of an unmoved mover, is a survival of Greek physics. It has been banished from science, but remains to haunt philosophy. The vague and mysterious properties assigned to mind and matter, the very conceptions of mind and matter in traditional thought, are ghosts walking underground. The notion of matter actually found in the practice of science has nothing in common with the matter of materialists—and almost everybody is still a materialist as to matter, to which he merely adds a second rigid structure which he calls mind. The matter of science is a character of natural events and changes as they change; their character of regular and stable order.

QUALITIES THE CONDITIONS OF RELATIONS[5]

It would be difficult to find a fact more significant of the traits of nature, more instructive for a naturalistic metaphysics of existence, than this cleavage of the things of human experience into actual but hard objects, and enjoyed but imagined objects. One might think that philosophers in their search for some datum that possesses properties that put it beyond doubt, might have directed their attention to this direct phase of experience, in which objects are not a matter of sensations, ideas, beliefs or knowledge, but are something had and enjoyed. All that "self-evidence" can intelligibly mean is obviousness of presence; commonplaces like human interest in the things of sport and celebration are the most conspicuously obvious of all. In comparison, the "self-evident" things of philosophers are recondite and technical.

The other most self-evident thing in experience is useful labor and its coercive necessity. As direct appreciative enjoyment exhibits things in their consummatory phase, labor manifests things in their connections of things with one another, in efficiency, productivity, furthering, hindering, generating, destroying. From the standpoint of enjoyment a thing is what it directly does for us. From that of labor a thing is what it will do to other things—the only way in which a tool or an obstacle can be defined. Extraordinary and subtle reasons have been assigned for belief in the principle of causation. Labor and the use of tools seem, however, to be a sufficient empirical reason: indeed, to be the only empirical events that can be specifically pointed to in this connection. They are more adequate grounds for acceptance of belief in causality than are the regular sequences of nature or than a category of reason, or the alleged fact of will. The first thinker who proclaimed that every event is effect of something and cause of something else, that every particular existence is both conditioned and condition, merely put into words the procedure of the workman, converting a mode of practice into a formula. External regularity is familiar, customary, taken for granted, not thought of, embodied in thoughtless routine. Regularity, orderly sequence, in productive labor presents itself to thought as a controlling principle. Industrial arts are the type-forms of experience that bring to light the sequential connections of things with one another.

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[5] From *Experience and Nature*, pp. 83-86.

In contrast, the enjoyment (with which suffering is to be classed) of things is a declaration that natural existences are not mere passage ways to another passage way, and so on *ad infinitum.* Thinkers interested in esthetic experience are wont to point out the absurdity of the idea that things are good or valuable only for something else; they dwell on the fact vouchsafed by esthetic appreciation that there are things that have their goodness or value in themselves, which are not cherished for the sake of anything else. These philosophers usually confine this observation however to human affairs isolated from nature, which they interpret exclusively in terms of labor, or causal connections. But in every event there is something obdurate, self-sufficient, wholly immediate, neither a relation nor an element in a relational whole, but terminal and exclusive. Here, as in so many other matters, materialists and idealists agree in an underlying metaphysics which ignores in behalf of relations and relational systems, those irreducible, infinitely plural, undefinable and indescribable qualities which a thing must *have* in order to be, and in order to be capable of becoming the subject of relations and a theme of discourse.

Immediacy of existence is ineffable. But there is nothing mystical about such ineffability; it expresses the fact that of direct existence it is futile to say anything to one's self and impossible to say anything to another. Discourse can but intimate connections which if followed out may lead one to *have* an existence. Things in their immediacy are unknown and unknowable, not because they are remote or behind some impenetrable veil of sensation of ideas, but because knowledge has no concern with them. For knowledge is a memorandum of conditions of their appearance, concerned, that is, with sequences, coexistences, relations. Immediate things may be *pointed to* by words, but not described or defined. Description when it occurs is but a part of a circuitous method of pointing or denoting; index to a starting point and road which if taken may lead to a direct and ineffable presence. To the empirical thinker, immediate enjoyment and suffering are the conclusive exhibition and evidence that nature has its finalities as well as its relationships.

NATURAL TELEOLOGY[6]

The doctrine that objects as ends are the proper objects of science, because they are the ultimate forms of real being, met its doom in the scientific revolution of the seventeenth century. Essences and forms were attacked as occult; "final causes" were either wholly denied or relegated to a divine realm too high for human knowledge. The doctrine of natural ends was displaced by a doctrine of designs, ends-in-view, conscious aims constructed and entertained in individual minds independent of nature. Descartes, Spinoza and Kant are upon this matter at least in agreement with Bacon, Hume and Helvetius. The imputation to natural events of cosmic appetition towards ends, the notion that their changes were to be understood as efforts to reach a natural state of rest and perfection, were indicated as the chief source of sterility and fantasy in science; the syllogistic logic connected with the doctrine was discarded as verbal, polemical, and at its best irrelevant to the subtle operations of nature; purpose and contingency were alike relegated to the purely human and personal; nature was evacuated of qualities and became a homogeneous mass differentiated by differences of homogeneous motion in a homogeneous space. Mechanical relations, which Greek thought had rejected as equivalent to the chaotic reign of pure accident, became the head corner-stone of the conception of law, of uniformity and order. If ends were recognized at all, it was only under the caption of design, and design was defined as conscious aim rather than as objective order and architechtonic form. Wherever the influence of modern physics penetrated, the classic theory became remote, faded, factitious, with its assertion that natural changes are inherent movements toward objects which are their fulfillments or perfections, so that the latter are true objects of knowledge, supplying the forms or characters under which alone changes may be known. With the decay of this doctrine, departed also belief in cosmic qualitative differences and kinds, so that of necessity quality and immediacy had no recourse, expelled from objective nature, save to take refuge in personal consciousness.

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[6] From *Experience and Nature*, pp. 94-98.

Is this reversal of classic theories of existence inevitable? Must belief in ends involved in nature itself be surrendered, or be asserted only by means of a roundabout examination of the nature of knowledge which starting from conscious intent to know, finally infers that the universe is a vast, non-natural fulfillment of a conscious intent? Or is there an ingredient of truth in ancient metaphysics which may be extracted and re-affirmed?

Empirically, the existence of objects of direct grasp, possession, use and enjoyment cannot be denied. Empirically, things are poignant, tragic, beautiful, humorous, settled, disturbed, comfortable, annoying, barren, harsh, consoling, splendid, fearful; are such immediately and in their own right and behalf. If we take advantage of the word esthetic in a wider sense than that of application to the beautiful and ugly, esthetic quality, immediate, final or self-inclosed, indubitably characterizes natural situations as they empirically occur. These traits stand in themselves on precisely the same level as colors, sounds, qualities of contact, taste and smell. Any criterion that finds the latter to be ultimate and "hard" data will, impartially applied, come to the same conclusion about the former. *Any* quality as such is final; it is at once initial and terminal; just what it is as it exists. It may be referred to other things, it may be treated as an effect or as a sign. But this involves an extraneous extension and use. It takes us beyond quality in its immediate qualitativeness. If experienced things are valid evidence, then nature in having qualities within itself has what in the literal sense must be called ends, terminals, arrests, enclosures.

It is dangerous to venture at all upon the use of the word "ends" in connection with existential processes. Apologetic and theological controversies cluster about it and affect its signification. Barring this connotation, the word has an almost inexpugnable honorific flavor, so that to assert that nature is characterized by ends, the most conspicuous of which is the life of mind, seems like engaging in an eulogistic, rather than an empirical account of nature. Something much more neutral than any such implication is, however, meant. We constantly talk about things coming or drawing to a close; getting ended, finished, done with, over with. It is a commonplace that no *thing* lasts forever. We may be glad or we may be sorry but that is wholly a matter of the kind of history which is being ended. We may conceive the end, the close, as due to fulfillment, perfect attainment, to satiety, or to exhaustion, to dissolution, to something having run down or given out. Being an end may be indifferently an ecstatic culmination, a matter-of-fact consummation, or a deplorable tragedy. Which of these things a closing or terminal object is, has nothing to do with the property of being an end.

The genuine implications of natural ends may be brought out by considering beginnings instead of endings. To insist that nature is an affair of beginnings is to assert that there is no one single and all-at-once beginning of everything. It is but another way of saying that nature is an affair *of* affairs, wherein each one, no matter how linked up it may be with others, has its *own* quality. It does not imply that every beginning marks an advance or improvement; as we sadly know accidents, diseases, wars, lies and errors, begin. Clearly the fact and idea of beginning is neutral, not eulogistic; temporal, not absolute. And since wherever one thing begins something else ends, what is true of beginnings is true of endings. Popular fiction and drama shows the bias of human nature in favor of happy endings, but by being fiction and drama they show with even greater assurance that unhappy endings are natural events.

To minds inured to the eulogistic connotation of ends, such a neutral interpretation of the meaning of ends as has just been set forth may seem to make the doctrine of ends a matter of indifference. If ends are only endings or closings of temporal episodes, why bother to call attention to ends at all, to say nothing of framing a theory of ends and dignifying it with the name of natural teleology? In the degree, however, in which the mind is weaned from partisan and ego-centric interest, acknowledgement of nature as a scene of incessant beginnings and endings, presents itself as the source of philosophic enlightenment. It enables thought to apprehend causal mechanisms and temporal finalities as phases of the same natural processes, instead of as competitors where the gain of one is the loss of the other. Mechanism is the order involved in an historic occurrence, capable of definition in terms of the order which various histories sustain to each other. Thus it is the instrumentality of control of any particular termination since a sequential order involves the last term.

NATURAL TELEOLOGY AND CAUSALITY[7]

Primitive man like naïve common sense imputes terminating qualities to nature—in which it follows a sound realistic metaphysics. But it also imputes to them the property of causal determination, an imputation rejected by science. Rejection by science does not prove these qualities to be mere "subjective" or "private" appearances; it only shows that they are termini, closings of serial events. Events that achieve and possess them are linked, mediatory, transitive, indicative, and the proper material of knowledge. From the standpoint of causal sequence, or the order with which science is concerned, qualities are superfluous, irrelevant and immaterial. We could never predict their occurrence from the fullest acquaintance with the properties that form the objects of knowledge as such.

From the standpoint of the objects of knowledge, the relational orders or ends are abrupt and interruptive. Hence to a philosophy that takes the subject-matter of knowledge to be exclusive and exhaustive—as so much of modern philosophy has done—the relational orders or ends form a most perplexing problem, a mystery. For with extrusive and superfluous status they combine the property of being permeating and absorbing. They alone, as we say, are of interest, and they are the cause of taking interest in other things. For living creatures they form the natural platform for regarding other things. They are the basis, directly and indirectly, of active response to things. As compared with them, other things are obstacles and means of procuring and avoiding the occurrence of situations having them. When the word "consciousness" is—as it often is—used for a short name for the sum total of such immediate qualities as actually present themselves, it is the end or terminus of natural events. As such it is also gratuitous, superfluous and inexplicable when reality is defined in terms of the relational objects of science.

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[7] From *Experience and Nature,* pp. 103-104; 98-100.

The traditional conception of natural ends was to the effect that nature does nothing in vain; the accepted meaning of this phrase was that every change is for the sake of something which does not change, occurring in its behalf. Thus the mind started with a ready-made list of good things or perfections which it was the business of nature to accomplish. Such a view may verbally distinguish between something called efficient causation and something else called final causation. But in effect the distinction is only between the causality of the master who contents himself with uttering an order and the efficacy of the servant who actually engages in the physical work of execution. It is only a way of attributing ultimate causality to what is ideal and mental—the directive order of the master—while emancipating it from the supposed degradation of physical labor in carrying it out, as well as avoiding the difficulties of inserting an immaterial cause within the material realm. But in a legitimate account of ends as endings, all directional order resides in the sequential order. This no more occurs for the sake of the end than a mountain exists for the sake of the peak which is its end. A musical phrase has a certain close, but the earlier portion does not therefore exist for the sake of the close as if it were something which is done away with when the close is reached. And so a man is not an adult until after he has been a boy, but childhood does not exist for the sake of maturity.

By the nature of the case, causality, however it be defined, consists in the sequential order itself, and not in a last term which as such is irrelevant to causality, although it may, of course be, in addition, an initial term in another sequential order. The view held—or implied—by some "mechanists," which treats an initial term as if it had an inherent generative force which it somehow emits and bestows upon its successors, is all of a piece with the view held by teleologists which implies that an end brings about its own antecedents. Both isolate an event from the history in which it belongs and in which it has its character. Both make a factitiously isolated position in a temporal order a mark of true reality, one theory selecting initial place and the other final place. But in fact causality is another name for the sequential order itself; and since this is an order of a history having a beginning and end, there is nothing more absurd than setting causality over against either initiation or finality.

NATURALISTIC ACCOUNT OF THE STATIC AND DYNAMIC [8]

The same considerations permit a naturalistic interpretation of the ideas of dynamic and static. Every end is as such static; this statement is but a truism; changing into something else, a thing is obviously transitive, not final. Yet the thing which is a close of one history is always the beginning of another, and in this capacity the thing in question is transitive or dynamic. This statement also is tautology, for dynamic does not mean possessed of "force" or capable of emitting it so as to stir up other things and set them in motion; it means simply change in a connected series of events. The traditional view of force points necessarily to something transcendental, because outside of events, whether called God or Will or The Unknowable. So the traditional view of the static points to something fixed and rigid, incapable of change, and therefore also outside the course of things and consequently non-empirical. Empirically, however, there is a history which is a succession of histories, and in which any event is at once both beginning of one course and close of another; is both transitive and static. The phrase constantly in our mouths, "state of affairs," is accurately descriptive, although it makes sheer nonsense in both the traditional spiritual and mechanistic theories.

There are no changes that do not enter into an affair, *Res*, and there is no affair that is not bounded and thereby marked off as a state or condition. When a state of affairs is perceived, the perceiving-of-a-state-of-affairs is a further state of affairs. Its subject-matter is a thing in the idiomatic sense of thing, *res*, whether a solar-system, a stellar constellation, or an atom, a diversified and more or less loosely interconnection of events, falling within boundaries sufficiently definite to be capable of being approximately traced. Such is the unbiased evidence of experience in gross, and such in effect is the conclusion of recent physics as far as a layman can see. For this reason, and not because of any unique properties of a separate kind of existence, called psychic or mental, every situation or field of consciousness is marked by initiation, direction or intent, and consequence or import.

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[8] From *Experience and Nature*, pp. 100-101.

NATURAL ENDS AND HUMAN DESIGNS[9]

By "ends" we also mean ends-in-view, aims, things viewed after deliberation as worthy of attainment and as evocative of effort. They are formed from objects taken in their immediate and terminal qualities; objects once having occurred as endings, but which are not now in existence and which are not likely to come into existence save by an action which modifies surroundings. Classic metaphysics is a confused union of these two sense of ends, the primarily natural and the secondarily natural, or practical, moral. Each meaning is intelligible, grounded, legitimate in itself. But their mixture is one of the Great Bads of philosophy. For it treats as natural ends, apart from reflection, just those objects that are worthy and excellent to reflective choice. Popular thought, in accord with the Greek tradition, picks and chooses among all ends those which it likes and honors, at the same time ignoring and implicitly denying the act of choice. Like those who regard a happy escape from a catastrophe as a providential intervention, neglecting all who have not escaped, popular teleology regards *good* objects as natural ends, *bad* objects and qualities being regarded as mere accidents or incidents, regrettable mechanical excess or defect. Popular teleology like Greek metaphysics has accordingly been apologetic, justificatory of the beneficence of nature; it has been optimistic in a complacent way.

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[9] From *Experience and Nature*, pp. 103-107; 111-112.

The features of this confused metaphysics are: first, elimination, from the status of natural ends, of all objects that are evil and troublesome; secondly, the grading of objects selected to constitute natural ends into a fixed, unchangeable hierarchical order. Objects that possess and import qualities of struggle, suffering and defeat are regarded not as ends, but as frustrations of ends, as accidental and inexplicable deviations. Theology has resorted to an act of original sin to make their occurrence explicable, Greek metaphysics resorted to the presence in nature of a recalcitrant, obdurate factor. To this provincially exclusive view of natural termini, popular teleology adds a ranking of objects according to which some are more completely ends than others, until there is reached an object which is only end, never eventful and temporal—*the* end. The hierarchy is explicit in Greek thought: first, and lowest, are vegetative ends, normal growth and reproduction; second in rank come animal ends, locomotion and sensibility; third in rank are ideal and rational ends, of which the highest is blissful contemplative possession in thought of all the forms of nature. In this gradation, each lower rank while an *end* is also means or preformed condition of higher ends. Empirical things, things of useful arts, belonging to the second class but, affected by an adventitious mixture of thought, are ultimately instrumentalities potential for the life of pure rational possession of ideal objects. Modern teleologies are much less succinct and definite, they agree however in the notion of rows of inferior ends which prepare for and culminate in something which is *the* end.

Such a classificatory enterprise is naturally consoling to those who enjoy a privileged status, whether as philosophers, as saints or scholars, and who wish to justify their special status. But its consoling apologetics should not blind us to the fact that to think of objects as more or less ends is nonsense. They either have immediate and terminal quality; or they do not: quality as such is absolute not comparative. A thing may be of some shade of blue when compared with some quality that is wanted and striven for; but its blue is not itself more or less blue than blueness, and so with the quality of being terminal and absorbing. Objects may be more or less absorptive and arresting and thus possess degrees of intensity with respect to finality. But this difference of intensity is not, save as subject to reflective choice, a distinction in rank or class of finality. It applies to different toothaches as well as to different objects of thought; but it does not apply, inherently, to the difference between a toothache and an ideal object—save that a thing like a toothache is often possessed of greater intensity of finality. If we follow the clew of the latter fact, we shall probably conclude that search for pure and unalloyed finality carries us to inarticulate sensation and overwhelming passion. For such affairs are the best instances of things that are complete in themselves with no outleadings.

If then rational essences or meanings are better objects of contemplation than are seizures by sensory and passionate objects, it is not because the former are fulfillments of higher or more "real" antecedent processes. They are not graded on the basis of being lesser or greater actualizations. It is because they present themselves to reflective appraisal as more worthy to be striven for. And this rational character implies that the *things* which have the better qualities possess also transitiveness, instrumentality, as well as immediacy and finality. They are potential and productive. They lead somewhere, perhaps to other affairs having qualities to be envisaged and deeply meditated. If dialectic were not so esthetically enjoyable to some, it would never have played the rôle it has played in liberating man from the dominion of sensation and impulse. This shows that the esthetic object may be useful and an useful one esthetic, or that immediacy and efficacy[10] though distinguishable qualities are not disjoined existentially. But it is no reason for making contemplative knowledge or any other particular affair the highest of all natural ends. Whether the given or the deliberately constructed is a better or higher end is not a question of intrinsic quality, but a matter of reflectively determined judgment. It is conceivable that just because certain objects are immediately good, that which secures and extends their occurrence may itself become for reflective choice a supreme immediate good.

It is not easy to distinguish between ends as *de facto* endings, and ends as fulfillments, and at the same time to bear in mind the connection of the latter with the former. We respond so directly to some objects in experience with intent to preserve and perpetuate them that it is difficult to keep the conception of a thing as terminus free from the element of deliberate choice and endeavor; when we think of it or discourse about it, we introduce connection. Since we turn away from trouble and suffering, since these things are not the objects of choice and effort save in avoidance, it seems forced to call them ends. To name them such appears an impropriety of language. I am quite willing to concede the linguistic point, provided its implications are acknowledged and adhered to. For in this case we are left, apart from a deliberately directed course of events, only with objects immediately used, enjoyed and suffered but having in themselves no claim to the title of ends. Health in this case is not in itself an end of any natural process; much less an end-in-itself. It is an enjoyed good when it happens just as disease is a suffered ill. Similarly, truth of belief and statement is an affair that has the quality of good; but it is not an end just because it is good; it becomes an end only when, because of its goodness, it is actively sought for and reached as a conclusion. On this basis, all ends are ends-in-view; they are no longer ideal as characters of Being, as they were in Greek theory, but are the objects of conscious intent. When achieved in existence they are ends because they are then conclusions attained through antecedent endeavor, just as a post is not a goal in itself, but becomes a goal in relation to a runner and his race. Either we must consistently stick to the equivalence of ends with objectives of conscious endeavor, or admit that all things directly possessed of irreducible and self-sufficing quality, red and blue, pain, solidity, toughness, smoothness and so on through the list, are natural ends.

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[10] To avoid misapprehension it should perhaps be explicitly stated the term "efficacy," employed here and elsewhere, does not imply an interpretation in terms of the old theory of something engaged in emitting force. It is used purely denotatively; it designates empirical position in a course of affairs having a specifiable ending; its meaning is defined not by any theory, but by such affairs as that to get a fire, a match is applied and that it is applied not to a stone but to paper or shavings. The words agency, instrumentality, causal condition, which appear frequently in these pages are to be similarly translated.

CAUSES ARE NOT METAPHYSICALLY SUPERIOR TO EFFECTS[11]

If we recognize that all qualities directly had in conscious experience apart from use made of them, testify to nature's characterization by immediacy and finality, there is ground for unsophisticated recognition of use and enjoyment of things as natural, as belonging to the things as well as to us. *Thing*s are beautiful and ugly, lovely and hateful, dull and illuminated, attractive and repulsive. Stir and thrill in us is as much theirs as is length, breadth, and thickness. Even the utility of things, their capacity to be employed as means and agencies, is first of all not a relation, but a quality possessed; immediately possessed, it is as esthetic as any other quality. If labor transforms an orderly sequence into a means of attaining ends, this not only converts a causal ending into a fulfillment, but it also gives labor an immediate quality of finality and consummation. Art, even fine art, is long, as well as a joy.

[11] From *Experience and Nature*, pp. 108-110.

From the standpoint of control and utilization, the tendency to assign superior reality to causes is explicable. A "cause" is not merely an antecedent; it is that antecedent which if manipulated regulates the occurrence of the consequent. This is why the sun rather than night is the causal condition of day. Knowing that consequences will take care of themselves if conditions can be had and managed, an ineradicable natural pragmatism indulges in a cheap and short conversion, and conceives the cause as intrinsically more primary and necessary. This practical tendency is increased by the fact that time is a softener and dignifier; present troubles lose their acuteness when they are no longer present. Old times are proverbially the good old times, and history begins with a Garden of Paradise or a Golden Age. Good, being congenial, is held to be normal; and what is suffered is a deviation, creating the problem of evil. Thus the earlier gets moral dignity as well as practical superiority. But in existence, or metaphysically, cause and effect are on the same level; they are portions of one and the same historic process, each having immediate or esthetic quality and each having efficacy, or serial connection. Since existence is historic it can be known or understood only as each portion is distinguished and related. For knowledge "cause" and "effect" alike have a partial and truncated being. It is as much a part of the real being of atoms that they give rise in time, under increasing complication of relationships, to qualities of blue and sweet, pain and beauty, as that they have at a cross-section of time extension, mass, or weight.

The problem is neither psychological nor epistemological. It is metaphysical or existential. It is whether existence consists of events, or is possessed of temporal quality, characterized by beginning, process and ending. If so, the affair of later and earlier, however important it is for particular practical matters, is indifferent to a theory of valuation of existence. It is as arbitrary to assign complete reality to atoms at the expense of mind and conscious experience as it is to make a rigid separation between here and there in space. Distinction is genuine and for some purposes necessary. But it is not a distinction of kinds or degrees of reality. Space here is joined to space there, and events then are joined to events now; the reality is as much in the joining as in the distinction. In order to control the course of events it is indispensable to know their conditions. But to characterize the conditions, it is necessary to have followed them to some term, which is not fully followed till we arrive at something enjoyed or suffered, had and used, in conscious experience. Vital and conscious events exhibit actualization of properties that are not fully displayed in the simpler relationships that are by definition termed physical.

CAUSES SUPERIOR AS STABLE MEANS TO TRANSIENT ENDS[12]

If we discount practical bias toward the regular and repeated, and hence toward "causes" as opposed to consequences, all that is indicated by the transiency of immediate qualitative affairs is that immediacy is immediacy. By the nature of the case the occurrence of the immediate is at the mercy of the sequential order. In the case of the things which appeal to common-sense as substances, properties like mass and inertia, unchanged solidity and extension, count most. Rate of change is slow; and presents itself as a matter of attrition and accumulation; spatial qualities which are static chiefly figure. Time is of comparative indifference to the change of solid substances; a million years is a day. But whatever depends for its existence upon the interaction of a large number of independent variables is in unstable equilibrium; its rate of change is rapid; successive qualities have no obvious connection with one another; any shift of any part may alter the whole pattern. Thus, while light and water are "substances," a rainbow, depending upon a highly specialized conjunction of light and vapor, and being transient, is only a "phenomenon." Such immediate qualities as red and blue, sweet and sour, tone, the pleasant and unpleasant, depend upon an extraordinary variety and complexity of conditioning events; hence they are evanescent. They are never exactly reduplicated, because the exact combination of events of which they are termini does not precisely recur. Hence they are even more "phenomenal" than a rainbow; they must be hitched to substance as its "modes" to get standing in "reality."

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[12] From *Experience and Nature*, pp. 114-116; 118.

Thus the things that are most precious, that are final, being just the things that are unstable and most easily changing, seem to be different in kind from good, solid, old-fashioned substance. Matter has turned out to be nothing like as lumpy and chunky as unimaginative prejudice conceived it to be. But as compared with the changes of immediate qualities it seems in any case solid and substantial; a fact which accounts, I suppose, for the insertion of an immaterial sort of substance, after the analogy of matter-substance, underneath mental affairs. But when it is recognized that the latter are eventual and consummatory to highly complicated interactions of natural events, their transiency becomes itself intelligible; it is no ground of argument for a radical difference from the physical, the latter being also resolvable into a character of the course of events. While "consciousness" as the conspicuous and vivid presence of immediate qualities and of meanings, is alone of direct worth, things not immediately present, whose intrinsic qualities are not directly had, are primary from the standpoint of control. For just because the things that are directly had are both precious and evanescent, the only thing that can be thought of is the conditions under which they are had. The common, pervasive and repeated *is* of superior rank from the standpoint of safeguarding and buttressing the having of terminal qualities. Directly we can do nothing with the latter save have, enjoy and suffer them. So reflection is concerned with the order which conditions, prevents and secures their occurrence. The irony of many historic systems of philosophy is that they have so inverted the actualities of the case. The general, recurrent and extensive has been treated as the worthy and superior kind of Being; the immediate, intensive, transitory, and qualitatively individualized has been taken to be of importance only when it is imputed to something ordinary, which is all the universal can denotatively mean. In truth, the universal and stable are important because they are the instrumentalities, the efficacious conditions, of the occurrence of the unique, unstable and passing.

To point out something as a fact is not the same thing as to commend or eulogize the fact. I am not saying that it is a fine and noble thing that whatever is immediately consummatory and precious should be also evanescent and unique, never completely subject to principle and rule. A reporter is not necessarily to blame for the state of things that he reports. The fact hereby reported is so unescapable and so obvious to a candid empiricist that there is no occasion for either eulogy or condemnation.

TEMPORAL EXISTENCE AND ETERNAL ORDER [18]

Temporal quality is not to be confused with temporal order. Quality is quality, direct, immediate and undefinable. Order is a matter of relation, of definition, dating, placing and describing. It is discovered in reflection, not directly had and denoted as is temporal quality. Temporal order is a matter of science; temporal quality is an immediate trait of every occurrence whether in or out of consciousness. Every event as such is passing into other things, in such a way that a later occurrence is an integral part of the *character* or *nature* of present existence. An "affair," *Res*, is always at issue whether it concerns chemical change, the emergence of life, language, mind or the episodes that compose human history. Each comes from something else and each when it comes has its own initial, unpredictable, immediate qualities, and its own similar terminal qualities. The later is never just resolved into the earlier. What we call such resolution is merely a statement of the order by means of which we regulate the passage of an earlier into the later. We may explain the traits of maturity by better knowledge of childhood, but maturity is never just infancy plus.

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[18] From *Experience and Nature*, pp. 110-111; 148-149.

Empirically, individualized objects, unique affairs, exist. But they are evanescent, unstable. They tremble on the verge of disappearance as soon as they appear. Useful arts prove that, within limits, neglect of their uniqueness and attention to what is common, recurrent, irrelevant to time, procures and perpetuates the happening of some of these unique things. Timeless laws, *taken by themselves*, like all universals, express dialectic intent, not any matter of fact existence. But their ultimate implication is application; they are methods, and when applied as methods they regulate the precarious flow of unique situations. Objects of natural science are not metaphysical rivals of historical events; they are means of directing the latter. Events change; one individual gives place to another. But individually qualified things have some qualities which are pervasive, common, stable. They are out of time in the sense that a particular temporal quality is irrelevant to them. If anybody feels relieved by calling them eternal, let them be called eternal. But let not "eternal" be then conceived as a kind of absolute perduring existence or Being. It denotes just what it denotes: irrelevance to existence in its temporal quality. These non-temporal, mathematical or logical qualities are capable of abstraction, and of conversion into relations, into temporal, numerical and spatial *order*. As such they are dialectical, non-existential. But also as such they are tools, instrumentalities applicable to historic events to help regulate their course.

CHAPTER THREE

THE ORIGIN AND NATURE OF THE HUMAN MIND

WHAT IS MEANT BY PSYCHO-PHYSICAL[1]

EMPIRICALLY speaking, the most obvious difference between living and non-living things is that the activities of the former are characterized by needs, by efforts which are active demands to satisfy needs, and by satisfactions. In making this statement, the terms need, effort and satisfaction are primarily employed in a biological sense. By need is meant a condition of tensional distribution of energies such that the body is in a condition of uneasy or unstable equilibrium. By demand or effort is meant the fact that this state is manifested in movements which modify environing bodies in ways which react upon the body, so that its characteristic pattern of active equilibrium is restored. By satisfaction is meant this recovery of equilibrium pattern, consequent upon the changes of environment due to interactions with the active demands of the organism.

A plant needs water, carbon dioxide; upon occasion it needs to bear seeds. The need is neither an immaterial psychic force superimposed upon matter, nor is it merely a notional or conceptual distinction, introduced by thought after comparison of two different states of the organism, one of emptiness and one of repletion. It denotes a concrete state of events: a condition of tension in the distribution of energies such as involves pressure from points of high potential to those of low potential which in turn effects distinctive changes such that the connection with the environment is altered, so that it acts differently upon the environment and is exposed to different influences from it. In this fact, taken by itself, there is nothing which marks off the plant from the physico-chemical activity of inanimate bodies. The latter also are subject to conditions of disturbed inner equilibrium, which lead to activity in relation to surrounding things, and which terminate after a cycle of changes—a terminus termed saturation, corresponding to satisfaction in organic bodies.

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[1] From *Experience and Nature*, pp. 252-256.

The difference between the animate plant and the inanimate iron molecule is not that the former has something in addition to physico-chemical energy; it lies in the *way* in which physico-chemical energies are interconnected and operate, whence different *consequences* mark inanimate and animate activity respectively. For with animate bodies, recovery or restoration of the equilibrium pattern applies to the complex integrated course or history. In inanimate bodies as such, "saturation" occurs indifferently, not in such a way as to tend to maintain a temporal pattern of activity. The interactions of the various constituent parts of a plant take place in such ways as to tend to continue a characteristically organized activity; they tend to utilize conserved consequences of past activities so as to adapt subsequent changes to the needs of the integral system to which they belong. Organization is a fact, though it is not an original organizing force. Iron as such exhibits characteristics of bias or selective reactions, but it shows no bias in favor of remaining simple iron; it had just as soon, so to speak, become iron-oxide. It shows no tendency in its interaction with water to modify the interaction so that consequences will perpetuate the characteristics of pure iron. If it did, it would have the marks of a living body, and would be called an organism. Iron as a genuine constituent of an *organized* body acts so as to tend to maintain the type of activity of the organism to which it belongs.

If we identify, as common speech does, the physical as such with the inanimate we need another word to denote the activity of organisms as such. Psycho-physical is an appropriate term. Thus employed, "psycho-physical" denotes the conjunctive presence in activity of need-demand-satisfaction, in the sense in which these terms have been defined. In the compound word, the prefix "psycho" denotes that physical activity has acquired additional properties, those of ability to procure a peculiar kind of interactive support of needs from surrounding media. Psycho-physical does not denote an abrogation of the physico-chemical; nor a peculiar mixture of something physical and something psychical (as a centaur is half man and half horse); it denotes the possession of certain qualities and efficacies not displayed by the inanimate.

Thus conceived there is no problem of the relation of physical *and* psychic. There are specifiable empirical events marked by distinctive qualities and efficacies. There is first of all, *organization* with all which is implied thereby. The problem involved is one of definite factual inquiry. Under exactly what conditions does organization occur, and just what are its various modes and their consequences? We may not be able to answer these questions satisfactorily; but the difficulties are not those of a philosophical mystery, but such as attend any inquiry into highly complex affairs. Organization is an empirical trait of some events, no matter how speculative and dubious theories about it may be; especially no matter how false are certain doctrines about it which have had great vogue—namely, those doctrines which have construed it as evidence of a special force or entity called life or soul. Organization is so characteristic of the nature of some events in their sequential linkages that no theory about it can be as speculative or absurd as those which ignore or deny its genuine existence. Denial is never based on empirical evidence, but is a dialectical conclusion from a preconception that whatever appears later in time must be metaphysically unreal as compared with what is found earlier, or from a preconception that since the complex is controlled by means of the simpler, the latter is more "real."

BIOLOGICAL PREFERENCE THE BASIS OF SENSITIVITY [2]

Whenever the activities of the constituent parts of an organized pattern of activity are of such a nature as to conduce to the perpetuation of the patterned activity, there exists the basis of sensitivity. Each "part" of an organism is itself organized, and so of the "parts" of the part. Hence its selective bias in interactions with environing things is exercised so as to maintain *itself*, while also maintaining the whole of which it is a member. The root-tips of a plant interact with chemical properties of the soil in such ways as to serve organized life activity; and in such ways as to exact from the rest of the organism their own share of requisite nutrition. This pervasive operative presence of the whole in the part and of the part in the whole constitutes susceptibility—the capacity of feeling—whether or no this potentiality be actualized in plant-life. Responses are not merely selective, but are discriminatory, in behalf of some results rather than others. This discrimination is the essence of sensitivity. Thus with organization, bias becomes interest, and satisfaction a good or value and not a mere satiation of wants or repletion of deficiencies.

SENSITIVITY THE BASIS OF FEELING [3]

However it may be with plants and lower animals, in animals in which locomotion and distance-receptors exist, sensitivity and interest are realized as feeling, even though only as vague and massive uneasiness, comfort, vigor and exhaustion. A sessile organism requires no premonitions of what is to occur, nor cumulative embodiments of what has occurred. An organism with locomotion is as vitally connected with the remote as well as with the nearby; when locomotor organs are accompanied by distance-receptors, response to the distant in space becomes increasingly prepotent and equivalent in effect to response to the future in time. A response toward what is distant is in effect an expectation or prediction of a later contact. Activities are differentiated into the preparatory, or anticipatory, and the fulfilling or consummatory. The resultant is a peculiar tension in which each immediate preparatory response is suffused with the consummatory tone of sex or food or security to which it contributes. Sensitivity, the capacity, is then actualized as feeling; susceptibility to the useful and harmful in surroundings becomes premonitory, an occasion of eventual consequences within life.

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[2] From *Experience and Nature*, p. 256.

[3] *Ibid.*, pp. 256-258.

On the other hand, a consummation or satisfaction carries with it the continuation, in allied and reinforcing form, of preparatory or anticipatory activities. It is not only a culmination out of them, but is an integrated cumulation, a funded conservation *of* them. Comfort or discomfort, fatigue or exhilaration, implicitly sum up a history, and thereby unwittingly provide a means whereby (when other conditions become present) the past can be unravelled and made explicit. For it is characteristic of feeling that while it may exist in a formless condition, or without configured distinctions, it is capable of receiving and bearing distinctions without end. With the multiplication of sensitive discriminatory reactions to different energies of the environment (the differentiation of sense-organs, extero-ceptors and proprio-ceptors) and with the increase in scope and delicacy of movements (the development of motor-organs, to which internal glandular organs for effecting a requisite redistribution of energy correspond), feelings vary more and more in quality and intensity.

COMMUNICATION THE BASIS OF MENTAL LIFE[4]

The invention and use of tools have played a large part in consolidated meanings, because a tool is a thing used as means to consequences, instead of being taken directly and physically. It is intrinsically relational, anticipatory, predictive. Without reference to the absent, or "transcendence," nothing is a tool. The most convincing evidence that animals do not "think" is found in the fact that they have no tools, but depend upon their own relatively-fixed bodily structures to effect results. Because of such dependence they have no way of distinguishing the immediate existence of anything from its potential efficiencies; no way of projecting its consequences to define a nature or essence. Anything whatever used as a tool exhibits distinction and identification. Fire existentially burns; while fire which is employed in order to cook and keep warm, especially after other things, like rubbing sticks together, are used as means to generate it, is an existence having meaning and potential essence. The presence of inflammation and terror or discomfort is no longer the whole story; an occurrence is now an object; and while it is absurd to hold (as idealism virtually does) that the meaning of an existence is the real substance of the existence, it is equally absurd not to recognize the full transformative import of what has happened.

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[4] From *Experience and Nature*, pp. 185-187; 258.

As to be a tool, or to be used as means for consequences, is to have and to endow with meaning, language, being the tool of tools, is the cherishing mother of all significance. For other instrumentalities and agencies, the things usually thought of as appliances, agencies and furnishings, can originate and develop only in social groups made possible by language. Things become tools ceremonially and institutionally. The notoriously conventionalized and traditional character of primitive utensils and their attendant symbolizations demonstrate this fact. Moreover, tools and artifices of agency are always found in connection with some division of labor which depends upon some device of communication. The statement can be proved in a more theoretical way. Immediacy as such is transient to the point of evanescence, and its flux has to be fixed by some easily recoverable and recurrent act within control of the organism, like gesture and spoken sounds, before things can be intentionally utilized. A creature might accidentally warm itself by a fire or use a stick to stir the ground in a way which furthered the growth of food-plants. But the effect of comfort ceases with the fire, existentially; a stick even though once used as a lever would revert to the status of being just a stick, unless the *relationship* between it and its consequence were distinguished and retained. Only language, or some form of artificial signs, serves to register the relationship and make it fruitful in other contexts of particular existence. Spears, urns, baskets, snares may have originated accidentally in some consummatory consequence of natural events. But only repetition through concerted action accounts for their becoming institutionalized as tools, and this concert of action depends upon the use of memoranda and communication. To make another aware of the possibility of a use or objective relationship is to perpetuate as an agency what is otherwise an incident; communication is a condition of consciousness.

Complex and active animals *have* feelings which vary abundantly in quality, corresponding to distinctive directions and phases—initiating, mediating, fulfilling or frustrating—of activities, bound up in distinctive connections with environmental affairs. They *have* them, but they do not know they have them. Activity is psycho-physical, but not "mental," that is, not aware of meanings. As life is a character of events in a peculiar condition of organization, and "feeling" is a quality of life-forms marked by complexly mobile and discriminating responses, so "mind" is an added property assumed by a feeling creature when it reaches that organized interaction with other living creatures which is language, communication. Then the qualities of feeling become significant of objective differences in external things and of episodes past and to come. This state of things in which qualitatively different feelings are not just had but are significant of objective differences, is mind. Feelings are no longer just felt. They have and they make *sense;* record and prophesy.

THE NATURE OF LANGUAGE [5]

Language is a natural function of human association; and its consequences react upon other events, physical and human, giving them meaning or significance. Events that are objects or significant exist in a context where they acquire new ways of operation and new properties. Words are spoken of as coins and money. Now gold, silver, and instrumentalities of credit are first of all, prior to being money, physical things with their own immediate and final qualities. But as money they are substitutes, representations, and surrogates, which embody relationships. As a substitute, money not merely facilitates exchange of such commodities as existed prior to its use, but it revolutionizes as well production and consumption of all commodities, because it brings into being new transactions, forming new histories and affairs. Exchange is not an event that can be isolated. It marks the emergence of production and consumption into a new medium and context wherein they acquire new properties.

Language is similarly not a mere agency for economizing energy in the interaction of human beings. It is a release and amplification of energies that enter into it, conferring upon them the added quality of meaning. The quality of meaning thus introduced is extended and transferred, actually and potentially, from sounds, gestures and marks, to all other things in nature. Natural events become messages to be enjoyed and administered, precisely as are song, fiction, oratory, the giving of advice and instruction. Thus events come to possess characters; they are demarcated, and noted. For character is general and distinguished.

When events have communicable meaning, they have marks, notations, and are capable of con-notation and de-notation. They are more than mere occurrences; they have implications. Hence inference and reasoning are possible; these operations read the message of things, which things utter because they are involved in human associations. When Aristotle drew a distinction between sensible things that are more noted—known—to us and rational things that are more noted—known—in themselves, he was actually drawing a distinction between things that operate in a local, restricted universe of discourse, and things whose marks are such that they readily enter into indefinitely extensive and varied discourse.

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[5] From *Experience and Nature,* pp. 173-178.

Gestures and cries are not primarily expressive and communicative. They are modes of organic behavior as much as are locomotion, seizing and crunching. Language, signs and significance, come into existence not by intent and mind but by over-flow, by-products, in gestures and sound. The story of language is the story of the *use* made of these occurrences; a use that is eventual, as well as eventful. Those rival accounts of the origin of language that go by the nicknames of bow-wow, pooh-pooh, and ding-dong theories are not in fact theories of the origin of *language*. They are accounts, of some plausibility, of how and why certain sounds rather than others were selected to signify objects, acts and situations. If the mere existence of sounds of these kinds constituted language, lower animals might well converse more subtly and fluently than man. But they became language only when used within a context of mutual assistance and direction. The latter are alone of prime importance in considering the transformation of organic gestures and cries into names, things with significance,—the origin of language.

Sub-human animals behave in ways which have no *direct* consequences of utility to the behaving animal, but which call out certain characteristic responses, sexual, protective, food-finding (as with the cluck of a hen to her chicks), in other animals. In some cases, the act evoked in other animals has in turn an important consequence for the first agent. A sexual act or a combined protective act against danger is furthered. In other cases, the consequences turn out useful to the species, to a numerically indeterminate group including individuals not yet born. Signaling acts evidently form the basic *material* of language. Similar activities occur without intent in man; thus a babe's scream attracts the attention of an adult and evokes a response useful to the infant, although the cry itself is an organic overflow having no intent. So too a man's posture and facial changes may indicate to another things which the man himself would like to conceal, so that he "gives himself away." "Expression," or signs, communication of meaning, exists in such cases for the observer, not for the agent.

While signaling acts are a material condition of language they are not language nor yet are they its *sufficient* condition. Only from an external standpoint, is the original action even a signal; the response of other animals to it is not to a sign, but, by some preformed mechanism, to a direct stimulus. By habit, by conditioned reflex, hens run to the farmer when he makes a clucking noise, or when they hear the rattle of grain in a pan. When the farmer raises his arms to throw the grain they scatter and fly, to return only when the movement ceases. They act as if alarmed; his movement is thus not a sign of food; it is a stimulus that evokes flight. But a human infant learns to discount such movements; to become interested in them as events preparatory to a desired consummation; he learns to treat them as signs of an ulterior event so that his response is to their meaning. He treats them as means to consequences. The hen's activity is ego-centric; that of the human being is participative. The latter puts himself at the standpoint of a situation in which two parties share. This is the essential peculiarity of language, or signs.

LANGUAGE-COMMUNICATION IS NOT SPEECH-REACTION[6]

A new conception that is thorough-going always simplifies. In fact it usually originates when a prevailing point of view has got overloaded, cumbrous and involved. The notion of behavior is already having a simplifying and reducing effect upon epistemology and in my opinion is only beginning its career. But a new point of view also tends to oversimplify, to neglect, ignore and thereby in effect to deny. It is one thing, for example, to deny qualities, meanings, feelings, consciousness, *etc.*, as they have been defined by prior theories, especially by modern psychology with its helplessly subjective and private metaphysics. It is another thing to deny the facts which common sense and common speech independently of any theory call by these names. Personally, I believe that the identification of knowing and thinking with speech is wholly in the right direction. But, with one marked exception, I have not seen any analysis of speech which appears adequate or which does not lay itself open to the charge of omitting and virtually denying obvious facts.

When it is asserted that speech as thought is a reaction, the question at once arises: What is its stimulus? The easy and simple reply is wrong. We are likely to say that speech is a reaction to a thing sensibly present, that, for example, I say "this is a knife" because a knife is sensibly present as a stimulus to speech. The behaviorist, of all persons, can not afford to give this account of the stimulus to speech. For if he does, he subjects himself to a final retort. The sensible presence of the knife is, then, already a case of knowledge, and speech instead of constituting knowledge merely voices, utters or reduplicates a knowledge already there in full existence. If the stimulus is not a thing sensibly present, neither is it merely some prior complete act or piece of behavior which causes contractions in the vocal organs. The utterances of a talking-machine are induced by an internal mechanism but they are not speech or knowledge; neither is a hiccough or groan or sigh, although it is caused in the vocal musculature by prior organic conditions.

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[6] From *The Journal of Philosophy*, Vol. XIX, pp. 561-565; *Experience and Nature*, pp. 179-180.

There is a difference between the concept of stimulus-reaction and that of cause-effect. The former includes, of course, the latter, but it adds something. It has, in addition, the property of an adaptation, or maladaptation, which is effected. But adaptation alone is not enough to differentiate stimulus and response in the case of speech. A sigh may relieve suffering and in so far be adaptive. Seeing as an act may be part of the stimulus to saying "that is a knife," but it can not be the entire stimulus. For seeing as a complete stimulus gives rise to the response of reaching and taking or withdrawing, not of speech. What has to be accounted for is the postponement of the complete overt reaction, and its conversion into an intermediate vocal reaction. There must be some break in the seeing-reaching sequence, some obstacle to its occurrence, to induce a diversion from the hand to the voice. There must be a defective or hesitant connection between seeing and handling which is somehow made good and whole by speech. Hence the stimulus to speech can not be identified, *per simpliciter*, with its object. The latter is its consequence, not its antecedent.

Not every speech reaction, even when genuine and not a mere vocalization, is a cognitive statement even by implication. Story-telling need not purport to state "facts" or "truths"; its interest may be increased by *vraisemblance*, but this trait serves a dramatic or imaginative end, not an intellectual one. A reader of Shakespeare may become a student of the sources upon which Shakespeare drew, and make speech reactions to this study. Then the reaction is cognitive. But he need not do so; he may be content to confine his speech reaction to a dramatic production. Again the reader may become interested in whether Shakespeare meant to represent Hamlet as mad; then his reaction is a judgment. But he may be satisfied merely to use speech as a means of re-creating a Hamlet either sane or mad; as a mode of story-telling or drama it makes no difference. There is no outside criterion till we go outside of mere story-telling. The play's the thing and it has no object of knowledge.

These remarks are intended to call attention to the need of discovering some differential trait of those speech reactions which do constitute knowledge. A story or play is there, and the re-enacting of it in a speech mode is purely additive. It makes another piece of behavior, but this new mode of behavior does not react back into the play or story or its conditions. It is complete on its own account. A play of Shakespeare may mean a hundred different things to a hundred different audiences or a hundred different persons in the same audience, and the diversity of the hundred speech reactions evoked is no matter. The speech reactions need have no connection with what Shakespeare himself meant in his reaction, beyond being caused by the latter. But a judgment or thought about what Shakespeare himself meant does not have any such self-sufficing independence. It has to link up with something outside itself. It has to be a reaction not merely to the play as a provocative cause, but has to be a response which somehow fits into or answers to the play as stimulus. Our problem is to name that distinctive feature of a speech reaction which confers upon it the quality of response, reply, answer; of supplying something lacking without it.

The statement "this is a knife" is cognitive because it is more than a mere evocation of a prior piece of behavior. It serves to supplement or complete a behavior which is incomplete or broken without it. As response it is reaction in another sense than when we say in physics: action and reaction are equal and in opposite direction. Some physical reactions are quite independent of that action to which they are reactions except in a causal sense. But a response in statement is intimately connected with that to which it answers. It is not merely to it or away from it, but is back *into* it: that is, it continues, developes, directs something defective without it. Without speech reaction the action which causes it is blind trial or error; with it, or rather through it, the evoking action becomes purposive, that is, continuous, cumulative. To be more specific the response "this is a knife" is produced by reactions of seeing and incipient reactions of reaching, touching, handling, which are up to the point of speech reaction fumbling, choked and conflicting. Speech reaction unifies them into the attitude of unhesitant readiness to seize and cut. It integrates or coordinates behavior tendencies which without it are uncertain and more or less antagonistic. This trait is the differentia of judgment from speech reaction in the form of story telling and vicarious dramatic reproduction. Unless we acknowledge and emphasize this trait, the behavioristic theory falls an easy victim to the contention that language merely echoes or puts into verbal form an apprehension that is complete without it. The dilemma is unescapable. Either the speech reaction does something to what calls it out, modifying it and giving it a behavior characteristic which it otherwise does not have, or it is mere utterance of what already exists apart from it.

This fact throws light upon the oversimplification referred to. It is easy to overlook the modifying, re-directive and integrative function of speech as a response. Then only one side of it is recognized, that of its being *caused* by a prior action. The result is an identification of stimulus and object of knowledge which not merely goes contrary to facts but which undermines the behavioristic statement. For since the stimulus as cause is there when the reaction takes place, the object must also be there, if stimulus and object are simply identified. Then, cognitively speaking, speech is a futile echoing, however useful it may be as a practical device for fixing attention or supplying a convenient memorandum for recollection.

Behavioristically, above all, we must conceive that speech response is not something final and isolated, but that it operates in turn as condition of some more effective and adequate adjustment. While practically this function may be often performed in a direction *away* from its cause, as when we call out to a person in danger to look out, without stopping to tell him why he should look out, intellectually its office is turned *toward* the cause to modify it. And the *object of judgment* is thus not the cause simply; it is the consequence, the modification effected in its cause by the speech reaction. The speech response is retroactive as it were; not that it can modify anything which has passed out of existence, but it influences a contemporary act of vision and a tendency to reach or handle so as to give them a directed unity which they would not otherwise achieve save at the termination of a period of trial and error.

The heart of language is not "expression" of something antecedent, much less expression of antecedent thought. It is communication; the establishment of cooperation in an activity in which there are partners, and in which the activity of each is modified and regulated by partnership. To fail to understand is to fail to come into agreement in action; to misunderstand is to set up action at cross purposes. Take speech as behavioristically as you will, including the elimination of all private mental states, and it remains true that it is markedly distinguished from the signaling acts of animals. Meaning is not indeed a psychic existence; it is primarily a property of behavior, and secondarily a property of objects. But the behavior of which it is a quality is a distinctive behavior; cooperative, in that response to another's act involves contemporaneous response to a thing as entering into the other's behavior, and this upon both sides. It is difficult to state the exact physiological mechanism which is involved. But about the fact there is no doubt. It constitutes the intelligibility of acts and things. Possession of the capacity to engage in such activity is intelligence. Intelligence and meaning are natural consequences of the peculiar form which interaction sometimes assumes in the case of human beings.

SENSE AND SIGNIFICATION [7]

Differences in qualities (feelings) of acts when employed as indications of acts performed and to be performed, and as signs of their consequences, *mean* something. And they mean it directly; the meaning is had as their own character. Feelings make sense; as immediate meanings of events and objects, they are sensations, or, more properly, sensa. Without language, the qualities of organic action that are feelings are pains, pleasures, odors, colors, noises, tones, only potentially and proleptically. With language they are discriminated and identified. They are then "objectified"; they are immediate traits of things. This "objectification" is not a miraculous ejection from the organism or soul into external things, nor an illusory attribution of psychical entities to physical things. The qualities never were "in" the organism; they always were qualities of interactions in which both extra-organic things and organisms partake. When named, they enable identification and discrimination of things to take place as means in a further course of inclusive interaction. Hence they are as much qualities of the things engaged as of the organism. For purposes of control they may be referred specifically to either the thing or to the organism or to a specified structure of the organism. Thus color which turns out not to be a reliable sign of external events becomes a sign of, say, a defect in visual apparatus. The notion that sensory affections discriminate and identify themselves, apart from discourse, as being colors and sounds, etc., and thus *ipso facto* constitute certain elementary modes of knowledge, even though it be only knowledge of their own existence, is inherently so absurd that it would never have occurred to any one to entertain it, were it not for certain preconceptions about mind and knowledge. Sentiency in itself is anoetic; it exists as any immediate quality exists, but nevertheless it is an indispensable means of any noetic function.

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[7] From *Experience and Nature*, pp. 258-261.

For when, through language, sentience is taken up into a system of signs, when for example a certain quality of the active relationship of organism and environment is named hunger, it is seen as an organic demand for an extra-organic object. To term a quality "hunger," to name it, is to refer to an object, to food, to that which will satisfy it, towards which the active situation moves. Similarly, to name another quality "red," is to direct an interaction between an organism and a thing to some object which fulfills the demand or need of the situation. It requires but slight observation of mental growth of a child to note that organically conditioned qualities, including those special sense-organs, are discriminated only as they are employed to designate objects; red, for instance, as the property of a dress or toy.

The difficulty in the way of identifying the qualities of acts conditioned by proprio-ceptor organs is notoriously enormous. They just merge in the general situation. If they entered into communication as shared means to social consequences they would acquire the same objective distinctiveness as do qualities conditioned by the extero-ceptor organs. On the other hand, the qualities of the latter are just shades of the general tone of situations until they are used, in language, as common or shared means to common ends. Then they are identified as traits of objects. The child has to learn through social intercourse that certain qualities of action mean greediness or anger or fear or rudeness; the case is not otherwise with those qualities which are identified as red, musical tone, a foul odor. The latter may have instigated nausea, and "red" may have excited uneasiness (as blood makes some persons faint); but discrimination of the nauseating object *as* foul odor, and of the excitation *as* red occurs only when they are designated as signs.

The qualities of situations in which organisms and surrounding conditions interact, when discriminated, make sense. Sense is distinct from feeling, for it has a recognized reference; it is the qualitative characteristic of something, not just a submerged unidentified quality or tone. Sense is also different from signification. The latter involves use of a quality as a sign or index of something else, as when the red of a light signifies danger, and the need of bringing a moving locomotive to a stop. The sense of a thing, on the other hand, is an immediate and immanent meaning; it is meaning which is itself felt or directly had. When we are baffled by perplexing conditions, and finally hit upon a clew, and everything falls into place, the whole thing suddenly, as we say, "makes sense." In such a situation, the clew has signification in virtue of being an indication, a guide to interpretation. But the meaning of the *whole* situation as apprehended is sense. This idiomatic usage of the word sense is much nearer the empirical facts than is the ordinary restriction of the word in psychological literature to a single simple recognized quality, like sweet or red: the latter simply designates a case of *minimum* sense, deliberately limited for purposes of intellectual safety-first. Whenever a situation has this double function of meaning, namely signification and sense, mind, intellect is definitely present.

THE THREE LEVELS IN NATURE[8]

The distinction between physical, psycho-physical, and mental is one of levels of increasing complexity and intimacy of interaction among natural events. Each one of these levels having its own characteristic empirical traits has its own categories. They are however categories of description, conceptions required to state the fact in question. They are not "explanatory" categories, as explanation is sometimes understood; they do not designate, that is, the operation of forces as "causes."

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[8] From *Experience and Nature,* pp. 261; 272-273.

They stick to empirical facts noting and denoting characteristic qualities and consequences peculiar to various levels of interaction. Viewed from this standpoint, the traditional "mechanical" and "teleological" theories both suffer from a common fallacy, which may be suggested by saying that they both purport to be explanatory in the old, non-historical sense of causality. One theory makes matter account for the existence of mind; the other regards happenings that precede the appearance of mind as preparations made for the sake of mind in a sense of preparation that is alleged to explain the occurrence of these antecedents.

THE NATURAL CONTINUITY OF THESE LEVELS[9]

Mechanistic metaphysics calls attention to the fact that the latter occurrence could not have taken place without the earlier; that given the earlier, the latter was bound to follow. Spiritualistic metaphysics calls attention to the fact that the earlier, material affairs, prepare the way for vital and ideal affairs, lead up to them; promote them. Both statements are equally true descriptively; neither statement is true in the explanatory and metaphysical meaning imputed to it.

The notion of causal explanation involved in both conceptions implies a breach in the continuity of historic process; the gulf created has then to be bridged by an emission or transfer of force. If one starts with the assumption that mind and matter are two separate things, while the evidence forces one to see that they are connected, one has no option save to attribute the power to make the connection, to carry from one to the other, to one or the other of the two things involved. The one selected is then "cause"; it accounts for the existence of the other. One person is struck by such affairs as that when a match is struck and paper is near by the paper catches fire, whether any one wished or intended it to do so or not. He is struck by a compulsory power exercised by the earlier over the later; given the lighted match and contiguous paper and the latter *must* burst into flame. Another person is struck by the fact that matches and paper exist only because somebody has use for them; that the intent and purpose of use preceded the coming into being of match and paper. So he concludes that thought, purpose, starts an emission and transfer of force which brought things into existence in order to accomplish the object of thought. Or, if a little less devoted to human analogies, one notes the cunning continuity of nature, how neatly one thing leads up to another, and how elegantly the later registers and takes advantage of what has gone before, and, beholding that the later is the more complex and the more significant, decides that what goes before occurs for the sake of the later, in its behalf, on its account. The eventual has somehow been there from the start, "implicitly," "potentially," but efficaciously enough to attend to its own realization by using material conditions at every stage.

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[9] From *Experience and Nature*, pp. 273-276.

The gratuitous nature of both assumptions is seen if we set out with any acknowledged historic process, say, the growth from infancy to maturity, or the development of a melodic theme. There are those who regard childhood as merely getting ready for the supreme dignity of adulthood, and there are those who seem quite sure that adult life is merely an unrolling by way of mechanical effects of the "causal" forces found in childhood. One of the theories makes youth a preliminary and intrinsically insignificant journey toward a goal; the other makes adulthood a projection, on a supernumerary screen, of a plate and pattern previously inserted in the projecting apparatus of childhood or of prenatal condition, or of heredity, or wherever the fixed and separated antecedent be located. Nevertheless the notion of growth makes it easy, I think, to detect the fallacy residing in both views: namely, the breaking up of a continuity of historical change into two separate parts, together with the necessity, which follows from the breaking-in-two, for some device by which to bring them together again.

The reality *is* the growth-process itself; childhood and adulthood are phases of a continuity, in which just because it is a history, the later cannot exist until the earlier exists ("mechanistic materialism" in germ); and in which the later makes use of the registered and cumulative outcome of the earlier—or, more strictly, *is* its utilization ("spiritualistic teleology" in germ). The real existence is the history in its entirety, the history as just what it is. The operations of splitting it up into two parts and then having to unite them again by appeal to causative power are equally arbitrary and gratuitous. Childhood is the childhood *of* and *in* a certain serial process of changes which is just what it is, and so is maturity. To give the traits of either phase a kind of independent existence, and then to use the form selected to account for or explain the rest of the process is a silly reduplication; reduplication, because we have after all only parts of one and the same original history; silly because we fancy that we have accounted for the history on the basis of an arbitrary selection of part of itself.

Substitute for such growth a more extensive history of nature and call it the evolution of mind from matter, and the conclusion is not different. In the old dispute as to whether a stag runs because he has long and slender legs, or has the legs in order that he may run, both parties overlook the natural descriptive statement; namely, that it is of the nature of what goes on in the world that the stag has long legs and that having them he runs. When mind is said to be implicit, involved, latent, or potential in matter, and subsequent change is asserted to be an affair of making it explicit, evolved, manifest, actual, what happens is that a natural history is first cut arbitrarily and unconsciously in two, and then the severance is consciously and arbitrarily cancelled. It is simpler not to start by engaging in such maneuvers.

THE NATURAL ENVIRONMENT OF MIND[10]

The discussion gives an understanding of the adaptation of nature and life and mind to one another. A mystery has not seldom been made of the fact that objective nature lends itself to man's sense of fitness, order and beauty; or, in another region of discourse, that objective nature submits to mental operations sufficiently to be known. Or, the mystery is conceived from the other end: it seems wonderful that man should be possessed of a sense of order, beauty and rightness; that he should have a capacity of thinking and knowing, so that man is elevated far above nature and seated with angels. But the wonder and mystery do not seem to be other than the wonder and mystery that there should be such a thing as nature, as existential events, at all, and that in being they should be what they are. The wonder should be transferred to the whole course of things. Only because an arbitrary breach has previously been introduced by which the world is first conceived as something quite different from what it demonstrably is, does it then appear passing strange that after all it should be just what it is.

The world is subject-matter for knowledge, because mind has developed *in* that world; a body-mind, whose structures have developed according to the structures of the world in which it exists, will naturally find some of its structures to be concordant and congenial with nature, and some phases of nature with itself. The latter are beautiful and fit, and others ugly and unfit. Since mind cannot evolve except where there is an organized process in which the fulfillments of the past are conserved and employed, it is not surprising that mind when it evolves should be mindful of the past and future, and that it should use the structures which are biological adaptations of organism and environment as its own and its only organs. In ultimate analysis the mystery that mind should use a body, or that a body should have a mind, is like the mystery that a man cultivating plants should use the soil; or that the soil which grows plants at all should grow those adapted to its own physico-chemical properties and relations.

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[10] From *Experience and Nature*, pp. 276-280; 74-75; 286.

Natural events are so complex and varied that there is nothing surprising in their possession of different characterizations, characters so different that they can be easily treated as opposites.

Nothing but unfamiliarity stands in the way of thinking of both mind and matter as different characters of natural events, in which matter expresses their sequential order, and mind the order of their meanings in their logical connections and dependencies. Processes may be eventful for functions which taken in abstract separation are at opposite poles, just as physiological processes eventuate in both anabolic and katabolic functions. The idea that matter and mind are two sides or "aspects" of the same things, like the convex and the concave in a curve, is literally unthinkable.

A curve is an intelligible object and concave and convex are defined in terms of this object; they are indeed but names for properties involved in its meaning. We do not start with convexity and concavity as two independent things and then set up an unknown *tertium quid* to unite two disparate things. In spite of the literal absurdity of the comparison, it may be understood however in a way which conveys an inkling of the truth. That to which both mind and matter belong is the complex of events that constitute nature. This becomes a mysterious *tertium quid*, incapable of designation, only when mind and matter are taken to be static structures instead of functional characters. It is a plausible prediction that if there were an interdict placed for a generation upon the use of mind, matter, consciousness as nouns, and we were obliged to employ adjectives and adverbs, conscious and consciously, mental and mentally, material and physically, we should find many of our problems much simplified.

Every "mind" that we are empirically acquainted with is found in connection with some organized body. Every such body exists in a natural medium to which it sustains some adaptive connection: plants to air, water, sun, and animals to these things and also to plants. Without such connections, animals die; the "purest" mind would not continue without them. An animal can live only as long as it draws nutriment from its medium, finds there means of defence, and ejects into it waste and superfluous products of its own making. Since no particular organism lasts forever, life in general goes on only as an organism reproduces itself; and the only place where it can reproduce itself is in the environment. In all higher forms reproduction is sexual; that is, it involves the meeting of two forms. The medium is thus one which contains similar and conjunctive forms. At every point and stage, accordingly, a living organism and its life processes involve a world or nature temporally and spatially "external" to itself but "internal" to its functions.

The only excuse for reciting such commonplaces is that traditional theories have separated life from nature, mind from organic life, and thereby created mysteries. Restore the connection, and the problem of how a mind can know an external world or even know that there is such a thing, is like the problem of how an animal eats things external to itself; it is the kind of problem that arises only if one assumes that a hibernating bear living off its own stored substance defines the normal procedure—ignoring moreover the question where the bear got its stored material. The problem of how one person knows the existence of other persons, is, when the relation of mind and life is genuinely perceived, like the problem of how one animal can associate with other animals, since other is other. A creature generated in a conjunctive union, dependent upon others (as are at least all higher forms) for perpetuation of its being, and carrying in its own structure the organs and marks of its intimate connection with others will know other creatures if it knows itself. Since both the inanimate and the human environment are involved in the functions of life, it is inevitable, if these functions evolve to the point of thinking and if thinking is naturally serial with biological functions, that it will have as the material of thought, even of its erratic imaginings, the events and connections of this environment. And if the animal succeeds in putting to use any of its thinkings as means of sustaining its functions, those thoughts will have the characters that define knowledge.

In contrast with lower organisms, the more complex forms have distance receptors and a structure in which activators and effectors are allied to distance even more extensively than to contact receptors. What is done in response to things near by is so tied to what is done in response to what is far away, that a higher organism acts with reference to a spread-out environment as a single situation. We find also in all these higher organisms that what is done is conditioned by consequences of prior activities; we find the fact of learning or habit-formation. In consequence, an organism acts with reference to a time-spread, a serial order of events, as a unit, just as it does in reference to a unified spatial variety. Thus an environment both extensive and enduring is immediately implicated in present behavior. Operatively speaking, the remote and the past are "in" behavior, making it what it is. The action called "organic" is not just that of internal structures; it is an integration of organic-environmental connections. It may be a mystery that there should be thinking but it is no mystery that if there is thinking it should contain in a "present" phase, affairs remote in space and in time, even to geologic ages, future eclipses and far away stellar systems. It is only a question of how far what is "in" its actual experience is extricated and becomes focal.

It is also an obvious empirical fact that animals are connected with each other in inclusive schemes of behavior by means of signaling acts, in consequence of which certain acts and consequences are deferred until a joint action, made possible by the signaling, occurs. In the human being, this function becomes language, communication, discourse, in virtue of which the consequences of the experience of one form of life are integrated in the behavior of others. With the development of recorded speech, the possibilities of this integration are indefinitely widened—in principle the cycle of objective integration within the behavior of a particular organism is completed. Not merely its own distant world of space-time is involved in its conduct but the world of its fellows. When consequences which are unexperienced and future to one agent are experienced and past to another creature with which it is in communication, organic prudence becomes conscious expectation, and future affairs living present realities. Human learning and habit-forming present thereby an integration of organic-environmental connections so vastly superior to those of animals without language that its experience appears to be super-organic.

Unless vital organizations were organizations *of* antecedent natural events, the living creature would have no natural connections; it would not be pertinent to its environment nor its environment relevant to it; the latter would not be usable, material of nutrition and defence. In similar fashion, unless "mind" was, in its existential occurrence, an organization *of* physiological or vital affairs and unless its functions developed out of the patterns of organic behavior, it would have no pertinency to nature, and nature would not be the appropriate scene of its inventions and plans, nor the subject-matter of its knowledge. If we suppose, per impossible or by a miracle, that a separate mind is inserted abruptly in nature, its operation would be wholly dialectical, and in a sense of dialectic which is non-existential not only for the time being, but forever; that is dialectic would be without any *possible* reference to existence. We are so used by tradition both to separating mind from the world and noting that its acts and consequences are relevant to the world—error, aberration and insanity can exist only with respect to relevancy—that we find it easier to make a problem out of the conjunction of two inconsistent premises than to rethink our premises.

THE PROBLEM OF MIND AND BODY [11]

The conspicuous trait of the period [12] in which science, philosophy and the arts were closely connected was the sense of wholeness, while the very problem of mind *and* body suggests the disastrous effect of the divisions that have since grown up. For I do not know of anything so disastrously affected by the tradition of separation and isolation as is this particular theme of body-mind. In its discussion are reflected the splitting off from each other of religion, morals, and science; the divorce of philosophy from science and of both from the arts of conduct. The evils which we suffer in education, in religion—for example, the fundamentalist attack about the evolution of man rests upon the idea of complete separation of mind and body; the materialism of business and the aloofness of "intellectuals" from life; the whole separation of knowledge from practise:—all testify to the necessity of seeing mind-body as an integral whole.

The division in question is so deep seated that it has affected even our language. We have no word by which to name mind-body in a unified wholeness of operation. For if we said "human life" few indeed would recognize that it is precisely this unity of mind-and-body in action to which we are referring. Consequently when we discuss the matter, when we talk of the relations of mind *and* body, and endeavor to establish their unity in human conduct, we still speak of body *and* mind, and thus unconsciously perpetuate the very division we are striving to deny.

I shall make no attempt to consider all the various theories which have developed in discussing their relation: panpsychism, epiphenomenalism, pre-established harmony, interactionism, parallelism, etc. I shall not even try to prove the unity of mind and body. I shall beg that question and devote the time to stating the nature of the unity and considering some of the causes which work against the recognition of it.

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[11] From *Body and Mind*; an address before the New York Academy of Medicine.

[12] The period of Greek philosophy especially represented in the school of Hippocrates. Ed.

I have used, in passing, the phrases "wholeness of operation," "unity in action." What is implied in them gives the key to the discussion. In just the degree in which action, behavior, is made central, the traditional barrier between mind and body breaks down and dissolves. It could be shown, I think, that the habit of regarding the mental and physical as separate things has its roots in regarding them as substances or processes instead of as functions and qualities of action. In contrast to such a notion, it is asserted that when we take the standpoint of human action, of life in operation, body presents itself as the mechanism, the instrumentality of behavior, and mind as the function, the fruit and consummation. To the interpretation of this statement our further remarks are given.

When we take the standpoint of action we may still treat some functions as primarily physical and others as primarily mental. Thus we think of, say, digestion, reproduction and locomotion as conspicuously physical, while thinking, desiring, hoping, loving, fearing are distinctively mental. Yet if we are wise we shall not regard the difference as other than one of degree and emphasis. If we go beyond this point and draw a sharp line between them, consigning one set to body exclusively and the other to mind exclusively we are at once confronted by undeniable facts. The being who eats and digests is also the one who at the same time is sorrowing and rejoicing; and it is a commonplace that he eats and digests in one way to one effect when glad, and in another when he is sad. Eating is also a social act and the emotional temper of the festal board enters into the alleged merely physical function of digestion. Eating of bread and drinking of wine have indeed become so integrated with the mental attitudes of multitudes of persons that they have assumed a sacramental, spiritual aspect. There is no need to pursue this line of thought to other functions which are sometimes termed exclusively physical. The case of taking and assimilating food is typical. It is an act in which means employed are physical while the quality of the act determined by its consequences is also mental. The trouble is that instead of taking the act in its entirety we cite the multitude of relevant facts only as evidence of influence of mind on body and body on mind—thus starting from and perpetuating the idea of their independence and separation even when dealing with their connection. What the facts tesify to is not an influence exercised across and between two separate things, but to behavior so integrated that it is artificial to split it up into two things.

The more human mankind becomes, the more civilized it is, the less is there some behavior which is purely physical and some other purely mental. So true is this statement that we use the amount of distance which divides them in any society as a test of the lack of human development of that community. There exists in present society, especially in industry, a large amount of activity that is almost exclusively mechanical; that is carried on with a minimum of thought and of accompanying emotion. There is a large amount of activity, especially in "intellectual" and "religious" groups in which the physical factor is at a minimum and what little there is is regretted as deplorable necessity. But each sort of behavior in the degree of its one-sidedness marks a degradation, an acquired habit whose formation is due to undesirable conditions; each marks an approximation to the pathological, a departure from that wholeness which is health. When behavior is reduced to a purely physical level and a person becomes like a part of the machine he operates, there is proof of social maladjustment. This is reflected into disordered and defective habits of the persons who act on the merely physical plane.

Action does not cease to be abnormal because it is said to be spiritual and concerned with ideal matters too refined to be infected with gross matter. Nor is it enough that we should recognize the part played by brain and nervous system in making our highly intellectual and "spiritual" activities possible. It is equally important that we realize that the latter are truncated and tend toward abnormality in the degree that they do not eventuate in employing and directing physical instrumentalities to effect material changes. Otherwise that which is called spiritual is in effect but indulgence in idle phantasy.

Thus the question of the integration of mind-body in action is the most practical of all questions we can ask of our civilization. It is not just a speculative question: it is a demand: a demand that the labor of multitudes now too predominantly physical in character, shall be inspirited by purpose and emotion and informed by knowledge and understanding. It is a demand that what now passes for highly intellectual and spiritual functions shall be integrated with the ultimate conditions and means of all achievement, namely, the physical; and thereby accomplish something beyond itself. Until this integration is effected in the only place where it can be carried out—in action itself—we shall continue to live in a society in which a soulless and heartless materialism is compensated for by soulful but futile and unnatural idealism and spiritualism. For materialism is not a theory, but a condition of action: it is that in which material and mechanical means are severed from the consequences which give them meaning and value. And spiritualistic idealism is not a theory but a state of action: that in which ends are privately enjoyed in isolation from means of execution and consequent public betterment.

In insisting upon the need of viewing action in its integrated wholeness, the need of discriminating between different qualities of action, due to the mode of integration, is emphasized not slurred. We need to distinguish between action that is routine and action alive with purpose and desire; between that which is cold and, as we significantly say, inhuman, and that which is warm and sympathetic; between that which faces actualities and that which marks a withdrawal from the conditions of the present and a retrogression to split-off conditions of the past; between that which is expansive and developing because including what is new and varying and that which applies only to the uniform and repetitious; between that which is bestial and that which is godlike in its humanity; between that which is spasmodic and centrifugal, dispersive and dissipating, and that which is centered and consecutive. Until we can make such distinctions and make them in a multitude of shades and degrees, we shall not be able to understand the conduct of individuals, and not understanding, shall not be able to help them in the management of their lives. Because of this lack education will be a guess in the dark; business a gamble in shifting about and circulating material commodities; and politics an intrigue in manipulation. What most stands in the way of our achieving a working technique for making such discriminations and employing them in the understanding and guidance of the various actions of those who stand in need of assistance is our habitual splitting up the qualities of action into two disjointed sorts.

It is necessary, however, to be explicit upon what is meant by saying that within the unity of behavior body stands for the means and agencies of conduct and mind for its incorporated fruits and consequences. The bodily phase of action may be approached and studied in two ways. We may take it in its connection with processes which are going on outside the body, the processes which it shares with inanimate things. Or we may take it in connection with what it actually does and effects in the distinctively human medium. The first mode of approach views action in all its modes as a variegated complex of physico-chemical interactions. This kind of study is more than legitimate; it is indispensable. If organic changes are regarded as something unique, cut off from and unlike in kind to those occurring in inanimate nature, we cannot understand them and, therefore, cannot direct them and modify the manner of their taking place. Only when we identify them with events in inanimate nature does our knowledge in physics and chemistry become available for knowing them; only then do the appliances and techniques we have developed for control of affairs outside the body become adaptable for use in dealing with what goes on within the body. As long as organic processes and changes are connected with any unique, non-physical force or principle, our knowledge of them is rudimentary and accidental. When they were seen to be shared with processes going on in inanimate nature, all that is discovered about the latter becomes an intellectual tool for systematic knowledge of vital processes, and the apparatus and techniques for directing physical nature are capable of utilization in hygienic, medical and surgical treatment of bodily changes.

If this were the whole of the story, bodily action would be wholly assimilated to inorganic action and the inclusion of the body in behavior that has mental quality would be impossible. The remainder of the story is that chemico-physical processes go on in and by interactions which have reference to the needs of the organism as a whole and thus take on psychical quality, and in human beings at least, are in such connection with the social environment as confers upon them intellectual quality. Any notion that human action is identical with that of non-living things or with that of the "lower" animals is silly. It is contradicted by the fact that behavior is so *organized* in human beings as to have for its consequence all that we call civilization, culture, law, art, fine and industrial, language, morals, institutions, science itself. And by its fruits we know it. Organic processes are seen to be the constituent means of a behavior which is endued with purpose and meaning, animate with affection, and informed by recollection and foresight. In the end, the bodily is but a name for the fact that wherever we have consequences, no matter how ideal, there are conditions and means. Materialism does not consist of a full and frank recognition of this fact, but in the isolation of means and conditions from what they actually do.

WHERE THE MIND IS [18]

Domination by spatial considerations leads some thinkers to ask *where* mind is. Reserving the discussion of *conscious* behavior for the next chapter, and accepting for the moment the standpoint of the questioner (which ignores the locus of discourse, institutions and social arts), limiting the question to the organic individual, we may say that the "seat" or locus of mind—its static phase—is the qualities of organic action, as far as these qualities have been conditioned by language and its consequences. It is usual for those who are posed by the question of "where" and who are reluctant to answer that mind is "where" there is a spaceless separate realm of existence, to fall back in general on the nervous system, and specifically upon the brain or its cortex as the "seat" of mind. But the organism is not just a structure; it is a characteristic way of interactivity which is not simultaneous, all at once, but serial. It is a way impossible without structures for its mechanism, but it differs from structure as walking differs from legs or breathing from lungs. Prior to communication, the qualities of this action are what we have termed psycho-physical; they are not "mental." The consequences of partaking in communication modify organic ways of acting; the latter attain new qualities.

When I think such meanings as "friend" and "enemy," I refer to external and eventual consequences. But this naming does not involve miraculous "action at a distance." There is something present in organic action which acts as a surrogate for the remote things signified. The words make immediate sense as well as have signification. This something now present is not just the activity of the laryngeal and vocal apparatus. When short-circuiting through language is carried as far as limitation to this apparatus, words are mere counters automatically used, and language disappears. The ideas are qualities of events in all the parts of organic structure which have ever been implicated in actual situations of concern with extra-organic friends and enemies:—presumably in proprio-receptors and organ-receptors with *all* their connected glandular and muscular mechanisms. These qualities give body and stuff to the activity of the linguistic apparatus. The integration of the qualities of vocal apparatus allied through the nervous mechanism with the qualities of these other events, constitutes the immediate sense of friendliness and animosity. The more intimate the alliance of vocal activity with the total organic disposition toward friends and enemies, the greater is the immediate sense of the words. The nervous system is in no sense the "seat" of the idea. It is the mechanism of the connection or integration of acts.

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[18] From *Experience and Nature*, pp. 291-295; "Does Reality Possess Practical Character?" in *Essays in Honor of William James*, p. 65.

It is interesting to note how the metaphysical puzzles regarding "parallelism," "interaction," "automatism," the relation of "consciousness" to "body," evaporate when one ceases isolating the brain into a peculiar physical substrate of mind at large, and treats it simply as one portion of the body, as the instrumentality of adaptive behavior.

It may be asserted that "soul" when freed from all traces of traditional materialistic animism denotes the qualities of psycho-physical activities as far as these are organized into unity. Some bodies have souls preeminently as some conspicuously have fragrance, color, and solidity. To make this statement is to call attention to properties that characterize these bodies, not to import a mysterious non-natural entity or force. Were there not in actual existence properties of sensitivity and of marvelously comprehensive and delicate participative response characterizing living bodies, mythical notions about the nature of the soul would never have risen. The myths have lost whatever poetic quality they once had; when offered as science they are superstitious encumbrances. But the idiomatic non-doctrinal use of the word soul retains a sense of the realities concerned. To say emphatically of a particular person that he has soul or a great soul is not to utter a platitude, applicable equally to all human beings. It expresses the conviction that the man or woman in question has in marked degree qualities of sensitive, rich and coordinated participation in all the situations of life. Thus works of art, music, poetry, painting, architecture, have soul, while others are dead, mechanical.

When the organization called soul is free, moving and operative, initial as well as terminal, it is spirit. Qualities are both static, substantial, and transitive. Spirit quickens; it is not only alive, but spirit gives life. Animals are spirited, but man is a living spirit. He lives in his works and his works do follow him. Soul is form, spirit informs. It is the moving function of that of which soul is the substance. Perhaps the words soul and spirit are so heavily laden with traditional mythology and sophisticated doctrine that they must be surrendered; it may be impossible to recover for them in science and philosophy the realities designated in idiomatic speech. But the realities are there, by whatever names they be called.

Old ideas do not die when the beliefs which have been explicitly associated with them disappear; they usually only change their clothes. Present notions about the organism are largely a survival, with changed vocabulary, of old ideas about soul and body. The soul was conceived as inhabiting the body in an external way. Now the nervous system is conceived as a substitute, mysteriously within the body. But as the soul was "simple" and therefore not diffused through the body, so the nervous system as the seat of mental events is narrowed down to the brain, and then to the cortex of the brain; while many physiological inquirers would doubtless feel enormously relieved if a specific portion of the cortex could be ascertained to be *the* seat of consciousness.

Those who talk most of the organism, physiologists and psychologists, are often just those who display least sense of the intimate, delicate and subtle interdependence of all organic structures and processes with one another. The world seems mad in pre-occupation with what is specific, particular, disconnected in medicine, politics, science, industry, education. In terms of a conscious control of inclusive wholes, search for those links which occupy key positions and which effect critical connections is indispensable. But recovery of sanity depends upon seeing and using these specifiable things *as* links functionally significant in a process. To see the organism *in* nature, the nervous system in the organism, the brain in the nervous system, the cortex in the brain is the answer to the problems which haunt philosophy. And when thus seen they will be seen to be *in*, not as marbles are in a box but as events are in a history, in a moving, growing never finished process.

CHAPTER FOUR

MIND AND CONSCIOUSNESS

MIND AND CONSCIOUSNESS CONTRASTED [1]

On the psycho-physical level, consciousness denotes the totality of actualized immediate qualitative differences, or "feelings"; upon the plane of mind it denotes, actualized apprehensions of meanings, that is, ideas. There is thus an obvious difference between mind and consciousness; meaning and an idea. Mind denotes the whole system of meanings as they are embodied in the workings of organic life; consciousness in a being with language denotes awareness or perception of meanings; it is the perception of actual events, whether past, contemporary or future, *in* their meanings, the having of actual ideas. The greater part of mind is only implicit in any conscious act or state; the field of mind—of operative meanings—is enormously wider than that of consciousness. Mind is contextual and persistent; consciousness is focal and transitive. Mind is, so to speak, structural, substantial; a constant background and foreground; perceptive consciousness is process, a series of heres and nows. Mind is a constant luminosity; consciousness intermittent, a series of flashes of varying intensities. Consciousness is, as it were, the occasional interception of messages continually transmitted, as a mechanical receiving device selects a few of the vibrations with which the air is filled and renders them audible.

The nature of awareness of meanings cannot be conveyed in speech. As with other immediate qualitative existences, words can only hint, point; the indication succeeding when it evokes an actual experience of the thing in question. Such words as apparency, conspicuousness, outstandingness, vividness, clearness, including of course their opposites vague, dim, confused, may assist the evocation. To denote the characteristics of mind a thoroughly different set of names must be used: organization, order, coherence. The relation of mind to consciousness may be partially suggested by saying that while mind as a system of meanings is subject to disorganization, disequilibration, perturbation, there is no sense in referring to a particular state of awareness *in its immediacy* as either organized or disturbed. An idea is just what it is when it occurs. To call it composed or perturbed is to compare one state with another, a comparison which by nature of the case can be made only indirectly on the basis of respective conditions and consequences. Emotional conditions do not *occur* as emotions, intrinsically defined as such; they occur as "tertiary" qualities of objects. Some cases of awareness or perception are designated "emotions" in retrospect or from without, as a child is instructed to term certain perceptual situations anger, or fear, or love, by way of informing him as to their consequences. Immediately, every perceptual awareness may be termed indifferently emotion, sensation, thought, desire: not that it *is* immediately any one of these things, or all of them combined, but that when it is taken in some *reference*, to conditions or to consequences or to both, it has, in that contextual reference, the distinctive properties of emotion, sensation, thought or desire.

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[1] From *Experience and Nature*, pp. 303-306.

The relation between mind and consciousness may be indicated by a familiar happening. When we read a book, we are immediately conscious of meanings that present themselves, and vanish. These meanings existentially occurring are *ideas*. But we are capable of getting ideas from what is read because of an organized system of meanings of which we are not at any one time completely aware. Our mathematical or political "mind" is the system of such meanings as possess and determine our particular apprehensions or ideas. There is, however, a continuum or spectrum between this containing system and the meanings which, being focal and urgent, are the ideas of the moment. There is a contextual field between the latter and those meanings which determine the habitual direction of our conscious thoughts and supply the organs for their formation. One great mistake in the orthodox psychological tradition is its exclusive preoccupation with sharp focalization to the neglect of the vague shading off from the foci into a field of increasing dimness.

Discrimination in favor of the clearly distinguished has a certain practical justification, for the vague and extensive background is present in every conscious experience and therefore does not define the character of any one in particular. It represents that which is being used and taken for granted, while the focal phase is that which is imminent and critical. But this fact affords no justification for neglect and denial in theory of the dim and total background of consciousness of every distinct thought. If there were a sharp division between the ideas that are focal as we read a certain section of a book and what we have already read, if there were not carried along a sense of the latter, what we now read could not take the form of an idea. Indeed, the use of such words as context and background, fringe, etc., suggests something too external to meet the facts of the case. The larger system of meaning suffuses, interpenetrates, colors what is now and here uppermost; it gives them sense, feeling, as distinct from signification.

Change the illustration from reading a book to seeing and hearing a drama. The emotional as well as intellectual meaning of each presented phase of a play depends upon the operative presence of a continuum of meanings. If we have to remember what has been said and done at any particular point, we are not aware of what is now said and done; while without its suffusive presence in what is now said and done we lack clew to its meaning. Thus the purport of past affairs is present in the momentary cross-sectional idea in a way which is more intimate, direct and pervasive than the way of recall. It is positively and integrally carried in and by the incidents now happening; these incidents are, in the degree of genuine dramatic quality, fulfillment of the meanings constituted by past events; they also give this system of meanings an unexpected turn, and constitute a suspended and still indeterminate meaning, which induces alertness, expectancy. It is this double relationship of continuation, promotion, carrying forward, and of arrest, deviation, need of supplementation, which defines that focalization of meanings which is consciousness, awareness, perception. Every case of consciousness is dramatic; drama is an enhancement of the conditions of consciousness.

CAN WE BE CONSCIOUS OF CONSCIOUSNESS? [2]

So far we have been dealing with awareness or consciousness as a fact—a fact there like any fact—and have been concerned to show that the subject-matter of awareness is, in any case, things in process of change. But what about the awareness itself? What happens when it is made the subject-matter of awareness? What sort of a thing is it? It is, I submit, mere sophistication (futile at that) to argue either that we cannot become aware of awareness without involving ourselves in an endless regress, or that whenever we are aware of anything we are thereby necessarily aware of awareness once for all, so that it has no character save this purely formal and empty one. Taken concretely, awareness is an event with certain specifiable conditions. We may indeed be aware of it formally, as a bare fact, just as we may be cognizant of an explosion without knowing anything of its nature. But we may also be aware of it in a curious and analytic spirit, undertaking to study it in detail. This inquiry, like any other inquiry, proceeds by determining conditions and consequences. Here awareness is a characteris-

[2] From "Does Reality Possess Practical Character?" in *Essays in Honor of William James*, pp. 72-77.

tic fact, presenting to inquiry its own characteristic earmarks; and a valid knowledge of awareness is *the* same sort of thing as valid knowledge of the spectrum or of a trotting horse; it proceeds generically in the same way and must satisfy the same generic tests.

What, then, is awareness found to be? The following answer, dogmatically summary in form, involves positive difficulties, and glides over many points where our ignorance is still too great. But it represents a general trend of scientific inquiry, carried on, I hardly need say, on its own merits without respect to the pragmatic controversy. Awareness means *attention*, and attention means a crisis of some sort in an existent situation; a forking of the roads of some material, a tendency to go this way and that. It represents something the matter, something out of gear, or in some way menaced, insecure, problematical, and strained. This state of tension, of ambiguous indication, projects and tendencies is not merely in the "mind," it is nothing merely emotional. It is in the facts of the situation as transitive facts; the emotional or "subjective" disturbance is just a part of the larger disturbance. And if, employing the *language* of psychology, we say that attention is a phenomenon of conflicting habits, being the process of resolving this conflict by finding an act which functions all the factors concerned, this language does not make the facts "merely psychological"—whatever that means.[3] The habits are as biologic as they are "personal," and as cosmic as they are biologic. They are the total order of things expressed in one way; just as a physical or chemical phenomenon is the same order expressed in another way. The statement in terms of conflict and readjustment of habits is at most one way of locating the disturbance in *things;* it furnishes no substitute for, or rival of, reality, and no "psychical" duplication.

If this be true, then awareness, even in its most perplexed and confused state, a state of maximum doubt and precariousness of subject-matter, means things entering, *via* the particular thing known as organism, into a peculiar condition of differential—or additive—change. How can we refuse to raise and consider the question of how things in this condition are related to the prior state which emerges into it, and to the subsequent state of things into which it issues?[4]

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[3] What does it mean? Does the objectivity of fact disappear when the biologist gives it a biological statement? Why not object to his conclusions on the ground that they are "merely" biological?

Suppose the case to be awareness of a chair. Suppose that this awareness comes only when there is some problematic affair with which the chair is in some way—in whatever degree of remoteness—concerned. It may be a wonder whether that is a chair at all; or whether it is strong enough to stand on; or where I shall put it; or whether it is worth what I paid for it; or, as not infrequently happens, the situation involved in uncertainty may be some philosophic matter in which the perception of the chair is cited as evidence or illustration. (Humorously enough, the awareness of it may even be cited in the course of a philosophic argument intended to show that awareness has nothing to do with situations of incompleteness and ambiguity.) Now what of the change the chair undergoes in entering this way into a situation of perplexed inquiry? Is this any part of the genuineness of that chair with which we are concerned? If not, where is the change found? In something totally different called "consciousness"? In that case how can the operations of inquiry, of observation and memory and reflection, ever have any assurance of getting referred back to the *right* object? Positively the presumption is that the *chair-of-which-we-are-speaking, is* the chair *of-which-we-are speaking;* it is the *same* thing that is out there which is involved also in the doubtful situation. Moreover, the reference to "consciousness" as the exclusive locus of the doubt only repeats the problem for "consciousness" by the theory under consideration, means, after all, only the chair *as* concerned in the problematical situation. The *physical* chair remains unchanged, you say. Surely, if as is altogether likely, what is *meant* by physical is precisely *that part* of the chair as object of total awareness which remains unaffected, for certain possible purposes, by entering for certain other actual purposes into the situation of awareness. But how can we segregate, *antecedently* to experimental inquiry, the "physical" chair from the chair which is now the object to be known; into what contradictions do we fall when we attempt to define the object of one awareness not in its own terms but in terms of a selected type of object which is the appropriate subject-matter of some other cognizance!

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[4] It is this question *of the relation to one other of different successive states of things* which the pragmatic method substitutes for the epistemological inquiry of how one sort of existence, purely mental, temporal but not spatial, immaterial, made up of a sublimated gaseous consciousness, can get beyond itself and have valid reference to a totally different kind of existence—spatial and extended: and how it can receive impressions from the latter, etc.,—all the questions which constitute that species of confirmed intellectual lock-jaw called epistemology.

But awareness means inquiry as well as doubt—these are the negative and positive, the retrospective and the prospective relationships of the thing. This means a genuinely *additive* quale—one of readjustment in prior things. I know the dialectic argument that nothing can assume a new relation, because in order to do so it must already be completely related—when it comes from an absolutist I can understand why he holds it, even if I cannot understand the idea itself. But apart from this conceptual reasoning, we must follow the lead of our subject-matter; and when we find a thing assuming new relations in the process of inquiry, we must accept the fact and frame our theory of things and of knowing to include it, not assert that it is impossible because we already have a theory of knowledge which precludes it.

DEFINITION OF CONSCIOUSNESS [5]

It is impossible to tell what immediate consciousness is —not because there is some mystery in or behind it, but for the same reason that we cannot tell just what sweet or red immediately is: it is something had, not communicated and known. But words, as means of directing action, may evoke a situation in which the thing in question is had in some particularly illuminating way. It seems to me that anyone who installs himself in the midst of the unfolding of drama *has* the experience of consciousness in just this sort of way; in a way which enables him to give significance to descriptive and analytic terms otherwise meaningless. There must be a story, some whole, an integrated series of episodes. This connected whole is mind, as it extends beyond a particular process of consciousness and conditions it. There must also be now-occurring events, to which meanings are assigned in terms of a story taking place. Episodes do not mean what they would mean if occurring in some different story. They have to be perceived in terms of the story, as its forwardings and fulfillings. At the same time, until the play or story is ended, meanings given to events are of a sort which constantly evoke a meaning which was not absolutely anticipated or totally predicted: there is expectancy, but also surprise, novelty. As far as complete and assured prediction is possible, interest in the play lags; it ceases to be an observed drama, it is not subsequently in consciousness.

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[5] From *Experience and Nature*, pp. 307-308.

An oft-told tale repeated without change fails to engage perception; it liberates us for attention to another story where development of meanings is as yet incomplete and indeterminate, possessed of suspense and uncertainty. Thus while perceptions are existentially intermittent and discrete, like a series of signal flashes, or telegraphic clicks, yet they involve a continuum of *meaning* in process of formation. If we became convinced that a succession of flashes or clicks were not a *series* of terms with respect to one and the same unfolding meaning, we should not attend to them or be aware of them. If on the other hand, there are no variations to compel suspense, no unforeseen movement in a new direction; if there is one unbroken luminosity, or one unbroken monotony of sound, there is no perception, no consciousness.

These considerations enable us to give a formal definition of consciousness in relation to mind or meanings. Consciousness, an idea, is that phase of a system of meanings which at a given time is undergoing re-direction, transitive transformation. The current idealistic conception of consciousness as a power which modifies events is an inverted statement of this fact. To treat consciousness as a power accomplishing the change, is but another instance of the common philosophic fallacy of converting an eventual function into an antecedent force or cause. Consciousness *is* the meaning of events in course of remaking; its "cause" is only the fact that this is one of the ways in which nature goes on. In a proximate sense of causality, namely as place in a series history, its causation is the need and demand for filling out what is indeterminate.

PSYCHOLOGICAL EVIDENCE FOR THIS DEFINITION [6]

Empirical evidence in support of the proposition that consciousness of meanings denotes re-direction of meanings (which are always ultimately meanings of events) is supplied by obvious facts of attention and interest on one side, and the working of established and assured habits on the other. The familiar does not consciously appear, save in an unexpected, novel situation, where the familiar presents itself in a new light and is therefore not wholly familiar. Our deepest-seated habits are precisely those of which we have least awareness. When they operate in a situation to which they are not accustomed, in an unusual situation, a new adjustment is required. Hence there is shock, and an accompanying perception of dissolving and reforming meaning. Attention is most alert and stretched, when, because of unusual situations, there is great concern about the issue, together with suspense as to what it will be. We are engaged at once in taking in what *is* happening and looking ahead to what has not yet happened. As far as we can count upon the contemporary conditions *and* upon their outcome, focalization of meaning is absent. That which is taken to be involved *in any event*, in every issue, *no matter what*, we are not aware of. If we consider the entire field from bright focus through the foreconscious, the "fringe," to what is dim, subconscious "feeling," the focus corresponds to the point of imminent need, of urgency; the "fringe" corresponds to things that just have been reacted to or that will soon require to be looked after, while the remote outlying field corresponds to what does not have to be modified, and which may be dependably counted upon in dealing with imminent need.

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[6] From *Experience and Nature*, pp. 311-314.

Hence the proverbial disparity between things in the scale of consciousness and in the scale of consequences is the most conclusive refutation of subjective idealism. The power of a momentary annoyance or flitting amusement to distract a personage from an enduringly serious question is a familiar theme of comedy; a glass of wine or the whine of a mosquito may exclude issues of life and death. Any trivial thing may swell and swell, if it bothers us. To like effect are the standing complaints of moralists that men sacrifice the great good to the lesser, if the latter be close at hand; and their proclamation that reason and freedom are only found when the near-by and the remote good are weighed with equal balance. Tragedy gives the same testimony. While doom impends the tragic hero fatally pursues his way, unheeding of the web closing in upon him, obvious to all others, and oblivious of what should be done to avert destructive destiny.

The *immediately* precarious, the point of greatest immediate need, defines the apex of consciousness, its intense or focal mode. And this is the point of *re*-direction, of *re*-adaptation, *re*-organization. Hence the aptness of James's comparison of the course of consciousness to a stream, in spite of its intermittent character—a fact empirically recognized in his intimation of its rhythmic waxings and wanings—; of his insistence that only an object, not a concrete consciousness which is had twice, or which remains the same; of his analogy of focus and fringe; of his statement of its movements as a series of perchings and flights, of substantial and transitive phases; for meanings are condensed at the focus of imminent re-direction only to disappear as organization is effected, and yield place to another point of stress and weakness.

Further empirical confirmation of this conception of consciousness is found in the extreme instability of every perceived object; the impossibility of excluding rapid and subtle change, except at the cost of inducing hypnotic sleep; the passage from being wide awake, awake, drowsy, dreaming and fast asleep, according as an organism is actively partaking, or abstaining from partaking, in the course of events. All that goes by the name of "relativity" of consciousness is to precisely the same effect, including the Weberian principle; perceived changes are those which require a re-direction of adaptive behavior. A prior adaptation constitutes a threshold (better called a platform or plateau); what is consciously noted is alteration of one plateau; re-adjustment to another. Similar events may mean cold at one time or place and warmth at another, depending upon the *direction* of organic re-adaptation. Even a toothache is unstable in consciousness for it is notoriously a matter of throbs, pulsations, palpitations, waxings and wanings of intensity, of organic protests and temporary deviations, and of enforced returns—of flights and perchings. The "toothache" which does not change is not the perceived toothache, but the cognitive *object*, the unperceived tooth to which the sequence of all changes is referred.

Finally, confirmation of the hypothesis is found in the fact that wherever perceptual awareness occurs, there is a "moment" of hesitation; there are scruples, reservations, incomplete overt action. It seems quite probable that men of the executive type are those of the least subtle and variegated perceptual field; of the lowest degree of consciousness, having the steepest threshold to be crossed in order to induce a state of awareness. We have to "stop and think," and we do not stop unless there is interference. The flood of action at high tide overrides all but the most considerable obstructions. It flows too forcibly and rapidly in one direction to be checked; without inhibition there are no hesitations, crises, alternatives, need of re-direction. Overt action is an enstatement of established organic-environmental integrations. As long as these *can* maintain themselves, they do so; there is then no opportunity for transforming meaning into idea. In completely integrated function there is no room for distinction between things signifying and things signified. Only when behavior is divided within itself, do some of its factors have a subject-matter which stands for present tendencies and for their requirements or indications and implications, while other factors stand for absent and remote objects which, in unifying and organizing activity, complete the meaning of what is given at hand. The readier a response, the less consciousness, meaning, thinking it permits; division introduces mental confusion, but also, in need for re-direction opportunity for observation, recollection, anticipation.

CONSCIOUSNESS AND BEHAVIOR [7]

Even a well-wisher (from the philosophic side) to the behaviorist movement must, however, express a certain fear and a certain hope. To sum them up in a single statement, it is possible to interpret the notion of "behavior" in a way that reflects interests and ideas that are appropriate only to the context of the type of psychology against which the behaviorist movement is professedly a protest. The limitation of behavior, for example, to the activities of the nervous system seems to me to express a by-product of the older problem of the relations of mind and body which, in turn, was an outcome of the notion of the mental (or psychical) as constituting a distinct realm of existence. Behavior, taken in its own terms and not as translated into the terms of some theoretical preconception, would seem to be as wide as the doings and sufferings of a human being. The distinction between routine and whimsical and intelligent—or aimful—behavior would seem to describe a genuine distinction in ways of behaving. To throw overboard "consciousness" as a realm of existences immediately given as private and open only to private inspection (or introspection) is one thing; to deny, on the basis of a behavior of the nervous system, the genuineness of the difference between conscious (or deliberate) behavior and impulsive and routine behavior is another thing. The obliteration of the conscious in its adjectival sense (as a quality of some types of response) because it is not discoverable by inspection of the operation of neurones or muscles seems to be the product of ways of thinking congenial only to a separation of physical and purposive action. And this separation would surely not arise if one *began* with behavior, for the separation implies an ascription of independent existence to the mental, on the basis of which alone some acts may be termed purely physical.

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[7] From *The Journal of Philosophy,* Vol. XI, pp. 509-511.

There is certainly every reason to think that the behavior of the nervous system is an important element in human behavior; there is reason to think that it is the crucial element in the mechanism of human behavior. But unless we start with behavior as more than physical, as meaning the sum total of life-attitudes and responses of a living being, and take these attitudes and responses at their face value, we shall never be able to discover the existence and importance of the nervous system as the mechanism of behavior. There must be genuine functions of which it is the operative mechanism, if it is to be identified as a mechanism.

Perhaps one example will make clearer what I am driving at. The psychology of immediately given conscious existence was compelled to treat meanings as simply aggregates of elementary states of consciousness, whose existence and aggregation as conscious things are open to immediate introspection. The behaviorist, in reaction from the artificiality and inadequacy of such a view, looks for some fact of ostensible, overt movement, that may be identified with thought, *i. e.*, meaning-functions. Quite naturally he fastens upon physical changes in the vocal apparatus. These movements open to objective detection and registration *are* what the other school had termed thought—consciousness as meanings, concepts, judgments, reasonings, or whatever. For my own part, I do not doubt that vocalization, including overt laryngeal changes, furnishes the mechanism of the greater part (possibly the whole) of thought-behavior. But to say that we can tell what speech or meaningful behavior *is* by examining this mechanism is putting the cart before the horse; the fact of speech behavior must be given as a primary fact before we can identify any particular set of structures as concerned in its exercise. The behavior standpoint means, unless it is sheared down in behalf of some unexpressed preconception, that speech is just what men *do* when they communicate with others or with themselves. Knowing the apparatus through which this doing is carried on, we doubtless know more about it than we should otherwise know; by this discovery we bring the doing under better control. But to say that physical movements, when the concrete empirical qualities of language are eliminated, *are* language is to begin by mutilating the facts. Exactly the same considerations apply to purposive behavior—that is, conscious behavior, the event from which "consciousness" is derived by making an adjective into a noun. Purposive behavior exists and is given as a fact of behavior; not as a psychical thing to be got at by introspection, nor as physical movement to be got at by physical instruments. It *is* and it *exists* as movements having specific qualities characteristic of them. We may distinguish between the movement and the quality, and thereby make a distinction between the physical and the mental. The distinction may serve to bring the performance of the function under greater control. But to ascribe independent complete existence to the movement, to say that *is* deliberate behavior, behavior having meaningful or conscious quality, is a fallacy of precisely the same kind as ascribing complete and independent existence to purpose as a merely psychical state. And it is a fallacy that flourishes only in an atmosphere already created by the belief in "consciousness"—just as the latter belief could hardly have arisen save in an atmosphere where all concrete behavior, all achievable action, was regarded as degraded and insignificant in comparison with religious contemplation that related men to a truly spiritual world, which was wholly extra-worldly, supernatural, and hence wholly non-physical.

I am only suggesting a continuation of the same line of thought when I say that in so far as behaviorists tend to ignore the social qualities of behavior, they are perpetuating exactly the tradition against which they are nominally protesting. To conceive behavior exclusively in terms of the changes going on within an organism physically separate in space from other organisms is to continue that conception of mind which Professor Perry has well termed "subcutaneous." This conception is appropriate to the theory of the existence of a field or stream of consciousness that is private by its very nature; it is the essence of such a theory. But when one breaks loose from such a theory he is authorized to take behavior as he finds it; if he finds attitudes and responses toward others which can not be located under the skin, they still have the full claim to recognition .

WHY HUMAN BEHAVIOR IS CONSCIOUS[8]

We have spoken so much of action and behavior that it is needful that we should be explicitly aware of what these words signify. In particular it is indispensable to note that when we are dealing with human behavior, the word designates a kind of behavior in which outcomes of the past and outlook on the future are incorporated; with something longitudinal and not something cross-sectionally lateral. We may isolate a particular organic structure or process for study. In as far as we do so, we regard it as similar to arrangements and processes which are shared with inanimate things. But we cannot understand the organism until we have taken its history into account. We have to know whether we are studying an embryonic, an infantile, a mature or a senescent form. We have to place the particular affair studied in a career of development. In dealing with a special chemical reaction, say that of hydrogen and oxygen in bringing water into existence, we may neglect past history. We select a brief segment for study because we are not concerned with the individuality of the molecules involved; it is enough that what happens is a specimen of something which recurs and is repeated in other situations independently of the individuality of just these molecules. This is precisely the omission we cannot make in studying human behavior.

A human being carries his past in his habitudes and habituations and we can rightly observe and understand the latter only as we are aware of the history which is included within them. That the practitioner, physician, psychiatrist, and educator, is capable of dealing intelligently with the phenomena which confront him only when he knows something of their life history, is a commonplace. And it is not just the life history of the particular symptom of disorder he needs to know but the life history of the individual in whom it appears. It is equally a commonplace that the need of such knowledge of life history as a whole increases in the degree in which the mental phase of disturbance is prominent.

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[8] From *Body and Mind*, an address before the New York Academy of Medicine; *The Public and Its Problems*, pp. 10-11.

Such facts point to what is signified when it is said that human behavior is longitudinal, not just cross-sectional. It forms a history, an autobiography, not indeed written but enacted. The import of this fact in relation to the mental phase of action should be evident. When it is neglected, any item of behavior is regarded as an immediate lateral cross-section, and thus becomes purely mechanical, and without intellectual and emotional quality. This is precisely what happens when a reflex or specific reaction to a specific stimulus is treated as the unit of behavior and all other behavior is in consequence treated as a compound of such units. Since the simple reflex is devoid of emotional and intellectual quality it then logically follows that mind is not a property of any behavior: it is a fiction or a meaningless by-product accompaniment—like the beauty of a rainbow with reference to a purely physical account of the refraction of light by vapor. To assert, then, that *conscious* behavior is a fiction is to draw a logical deduction from a premise, not to observe a fact. And since the fact of conscious behavior, of observing, analyzing, noting, reasoning, is involved in the whole undertaking, the absurdity of the conclusion shows the falsity of the premise. We know that the structures involved in reflexes are not as matter of fact primitive and original. The converse is true as both phylogeny and ontogeny prove. The beginning is with action in which the entire organism is involved, and the mechanism of reflexes is evolved as a specialized differentiation within an inclusive whole of behavior. The assumption that the nature of behavior is exemplified in a simple reflex is a typical case of the fallacy of neglecting development, historical career. In consequence, an account of the mechanism of a particular account of behavior is converted into an account of behavior itself and of behavior in its entirety. Only in this fashion is the rôle of the mental in action relegated to the realm of fiction.

The criticism may be broadened to take in the whole reduction of mental phenomena to the stimulus-response type as that reduction obtains in current psychological theory, even among those who do not call themselves behaviorists. There is no doubt that any item of behavior can be stated in terms of a response to a stimulus—just as it may be stated in terms of cause-effect. But as the doctrine is usually employed, it omits to consider the one question which is scientifically and practically important: namely, how did an object or situation acquire the capacity to *be* a stimulus? For to be a stimulus in evoking a response is an additive property of physical things. The organism is constantly surrounded by indefinitely numerous conditions which affect it. If we regard them all as stimuli because they enter into causal interaction with the living creature in some way, we then say, in effect, that the whole universe is stimulus and also response. Such a view clearly makes the theory worthless for purposes of *analysis.* We are trying to describe a particular mode of action and that implies that some special feature of the environment is so weighted as to operate as stimulus. Now what makes some physical thing or trait a stimulus is the condition of the whole organism at the time, its needs and the kind of behavior in which it is already engaged. And both of these things are longitudinal, historical; they include factors formed in previous life-history. Any particular thing at any particular time is a stimulus—evoking an adaptive response and use—only in virtue of the enacted biography of the organism.

There is an attempt to recognize the importance of historical development in some forms of the stimulus-response theory. Present behavior is traced back to original "bonds" in the nervous system which are innate, or to behavior in the form of what are usually called instincts.

Thus previous development is nominally taken into account. But such a recognition of the life-history of living beings is nominal rather than real. An earlier cross-section of behavior is postulated back of which development is not traced and consequently the place of the lateral segment in action as a whole is left out. The theory is only a verbal re-statement of the compounding of the reflex-units theory; the only difference is that an "instinct" or a preformed "bond" of stimulus and reaction, is somewhat more extensive and complex than is a reflex. But since it is not sufficiently complex and extensive to take in the needs, demands and disposition of the organism as a whole, the basic fallacy remains the same.

The reference to stimuli proceeding from the environment brings us in effect to the second way in which the account of behavior is rendered so partial and split off that its mental phase has either to be denied as a fiction or else regarded as mysterious and unnatural. For the stimulus-response theory, as usually held, cuts off the environment from behavior. It treats environment simply as an external occasion from which behavior proceeds. Behavior then becomes exclusively an affair going on inside the organism, an affair which is simply set off or initiated by the environment. In reality, the environment is just as much comprised within behavior as are organic processes. Behavior is not just something which goes on *in* a surrounding medium. If it were, behavior could be studied and described as something which goes on in the organism, or which goes forth out of it in total neglect of the environment save the reference to some part of the latter as a touch-and-go stimulus. Behavior in fact is a continuous interaction in which environing as well as organic factors are included. This is true even of the functions we often regard as exclusively physiological. We do not just breathe—we breathe air; we do not just digest—we digest food stuffs; we do not just move the legs and body—we walk on the ground and from one place to another so as to obtain a more favorable environment to be incorporated in subsequent behavior.

To describe the structures and processes of the organism in isolation, in their exclusive reference to organic structures, and call the result an account of behavior, is to omit the most distinctive character of behavior. Sherrington's classic work, *The Integrative Action of the Nervous System*, marks an epoch in the development of science. What behavior is it which the action of the nervous system integrates? Simply its own, turning upon itself as a snake is said to swallow its tail? Clearly not, but the behavior of the entire organism of which it is a part. But when and how is the action of the organism integrated? There can be one answer: it is integrated in the degree that it utilizes and transforms its environment by means of incorporating some element of the latter within behavior. Utilization here signifies that something in the surroundings is rendered a means in the carrying on of some phase of behavior, as assimilation of food and the breathing of air maintains life-behavior itself. Transformation signifies that some part of surrounding conditions is actually changed so that in some measure the environment is modified into a form more favorable than before to the maintenance of life-behavior. To describe the action of a part of the nervous system, or of the entire nervous system, or of the entire organism in isolation from the environment included within behavior, is like thinking that we can understand a machine, say a loom, if we omit the material—the yarn upon which it works, and the transformation of the material into cloth—wrought in the operation. Since the mental, if it can be found anywhere, must be found in behavior which comprises *objects* of desire, thought and affection, to accept the premise which identifies behavior with the action going on inside the organism, is to commit ourselves to denial of mental quality to action, as a dialectical conclusion from an assumed premise. Many persons will remain so assured that mental phenomena are actual facts, that they will then prefer to go on believing in them and will treat them as proofs of a mysterious something or substance called mind, soul, or consciousness. Thus the one-sidedness of the theory about behavior perpetuates the very tradition which a complete account of behavior would eliminate.

The bearing of this one-sided omission of the environment in the description of behavior upon the truly mental phase of behavior is most evident when we consider the elimination of the human or social environment. For it is the incorporation of this environment in action which is most intimately and extensively connected with the intellectual and emotional quality of behavior. The question of the rôle of language and other constructed signs in mind gives a crucial test. I do not question the connection of thinking with speech and other signs. Speech and the use of signs is an affair of behavior. What is questionable is the elimination of relations with other human beings from the account given of thinking in terms of language—habits conceived as "exercised implicitly behind the closed doors of the lips"—in other words as something which goes on subcutaneously, wholly inside the organism. Such a description reduces speech to vocalization or making of sounds and thinking to a silent exercise of the organs of vocalization and other internal structures.

Now the making of sounds is not speech. Sounds issuing from vocalization are speech only when they are used to institute a mode of behavior on the part of another human being which will favorably affect the behavior of the one speaking. Sounds issue from phonograph or radio—sounds which imitate articulate speech. The phonograph does not speak, however. For while the sounds that issue may induce action on the part of others, the anticipation of such action does not enter as a factor in its putting forth of sounds. Any modification of the behavior of others which is affected by the sounds emitted by the radio is not incorporated as a factor in *its* behavior. Precisely such inclusion of objective social consequences is what transforms the making of sounds into speech or language, as may be seen from taking any simple case of command, request or advice. Speech is primarily a mode of action by which the behavior of one is so influenced by the expected or hoped for behavior of others as to become an integral part of concerted action.

There are structural organs which physiologically manifest themselves in vocalizations as the organs of a bird induce song. But the barking of dogs and the song of birds are enough to prove that these native tendencies do not generate language. In order to be converted into language, native vocalization requires transformation by extrinsic conditions, both organic and extra-organic or environmental: formation, be it noted, not just stimulation. The cry of a baby can doubtless be described in purely organic terms, but the wail becomes a noun or verb only by its consequences in the responsive behavior of others. This responsive behavior takes the form of nurture and care, themselves dependent upon tradition, custom and social patterns.

Thinking as implicit speech is made on the same pattern. It represents the social situation carried over into the habits of the organism. One talks to himself as a way of anticipating objective consequences (that is, consequences into which the environment enters) before they happen and as a means of eventually securing those which are liked and averting or avoiding those which are disliked. This renders behavior intelligent, thoughtful. It is all to the good when "consciousness" is thrown overboard as a substance or separate process designated by a noun: for "ness" indicates that the noun is abstract and results from erecting a quality into a thing in itself. But the quality of being conscious remains; the difference between behavior aware of what it is about and routine or impulsive behavior is as marked a factual difference as we can anywhere discover.

To deny the reality of meaning as something mysterious and unnatural, outside of connection with the range of interactions which form behavior, is to the good. But refusal to admit meaning as a quality of behavior is another matter, and one which confutes itself. For the propounders of the doctrine that meaning is non-existent address words on that subject to others; they expect their language to be understood and not to be taken as nonsensical farrago; they anticipate certain consequences in the way of modified behavior to result from understanding and their language-behavior is modified by this expectation of response. They take it for granted that some behavior has meaning and this cannot be granted without implying that some behavior, their own, for example, in the observations and analyses whose conclusions they present, is conscious: that is, is aware of what it is about, of what it is doing, and trying to do. The conception of behavior in its integrity, as including a history and an environment, is the alternative to a theory which eliminates the mental because it considers only the behavior of the mechanism of action, and to a theory which thinks it ennobles the mental by placing it in an isolated realm.

MIND AS SOCIAL AND AS INDIVIDUAL[9]

An adherent of empirical denotative method can hardly accept either the view which regards subjective mind as an aberration or that which makes it an independent creative source. Empirically, it is an agency of novel reconstruction of a preëxisting order. Criticism of the history of political theory during the formation of modern European states may bring out the difference between such a view and that of both classic universalism and extreme modern subjectivism. The older theory had asserted that the state exists by nature. The modern declared that it existed by means of agreements between individuals who willed the institution of civil order. We may imagine reformers of the seventeenth century saying that the states they found about them did indeed exist by nature—that was precisely what was the matter with them. Because they were natural products, they were products of force, chance, fraud, tyranny. Hence they were naturally the scene of war, foreign and domestic, of servitudes and inequities, of intrigue and harsh coercion—one huge historical accident. A just and good state would be one brought into existence by voluntary convention; by promises exchanged and obligations mutually undertaken. A good state exists not by nature but by the contriving activities of individual selves in behalf of the satisfaction of their needs. It implies art, not nature; a clear perception by individuals of what they want and of the conditions through which their wants can be satisfied. In detail, thinkers divided into opposite schools. Some held that by nature individuals are non-social, becoming social when subjected to discipline by artificial and instituted law to which they are naturally adverse. Others attributed to the natural individual some degree of friendly and genial inclination. Both schools agreed that just political order, legitimate authority and subordination, is a product of voluntary conjunction of individuals naturally exempt from the universe of civil law.

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[9] From *Experience and Nature*, pp. 217-222.

The truth of which the social compact was a symbol is that social institutions as they exist can be bettered only through the deliberate interventions of those who free their minds from the standards of the order which obtains. The underlying fact was the perception of the possibility of a change, a change for the better, in social organization. The fact that the intent of the perception was veiled and distorted by the myth of an aboriginal single and once-for-all decisive meeting of wills is instructive as an aberration, but the myth should not disguise the intent and consequence. Social conditions were altered so that there were both need and opportunity for inventive and planning activities, initiated by innovating thought, and carried to conclusion only as the initiating mind secured the sympathetic assent of other individuals.

I say individual minds, not just individuals with minds.

The difference between the two ideas is radical. The whole history of science, art and morals proves that the mind that appears *in* individuals is not as such individual mind. The former is in itself a system of beliefs, recognitions, and ignorances, of acceptances and rejections, of expectancies and appraisals of meanings which have been instituted under the influence of custom and tradition.

It is not easy to break away from current and established classifications and interpretations of the world. The difficulty in this respect, however, is eased by the notion that after all it is only error that the mind needs to cut loose from, and that it can do this by direct appeal to nature, by applying pure observation and reflection to pure objects. This notion of course is fiction; objects of knowledge are not given to us defined, classified, and labeled, ready for pigeon-holes. We bring to the simplest observation a complex apparatus of habits, of accepted meanings and techniques. Otherwise observation is the blankest of stares, and the natural object is a tale told by an idiot, full only of sound and fury. In the case of social objects and patterns, institutions and arrangements, we have not the benefit of the mitigating fiction of direct correction by appeal of transparent mind to the court of nature. There *is* a contrast between physical objects and objects as they are believed to be, even though what they are believed to be is an unescapable medium in observing what they are. Where is such a contrast to be found in the case of existing social institutions and standards? The contrast is not, as it seems to be in the case of knowledge of physical existence, between a belief which is defective or false and an existence which is real; it is between an existence which is actual, and a belief, desire and aspiration for something which is better but non-existent.

Such facts exemplify the difference between a bodily or a psychic self *with* a mind and mind *as* individual. Either the better social object is sheer illusion, or else individual thought and desire denote a distinctive and unique mode of existence, an object held in solution, undergoing transformation, to emerge finally as an established and public object. Reference to imagination is pertinent. But the reference is too frequently used to disguise and avoid recognition of the essential fact and the problems involved in it. Imagination as mere reverie is one thing, a natural and additive event, complete in itself, a terminal object rich and consoling, or trivial and silly, as may be. Imagination which terminates in a modification of the objective order, in the institution of a new object is other than a merely added occurrence. It involves a dissolution of old objects and a forming of new ones in a medium which, since it is beyond the old object and not yet in a new one, can properly be termed subjective.

The point in placing emphasis upon the rôle of individual desire and thought in social life has in part been indicated. It shows the genuinely intermediate position of subjective mind: it proves it to be a mode of natural existence in which objects undergo directed reconstitution. Reference to the place of individual thought in political theory and practice has another value. Unless subjective intents and thoughts are to terminate in picturesque utopias or dogmas irrelevant to constructive action, they are subject to objective requirements and tests. Even in the crudest form of the contract theory, men had to *do* something. They had at least to meet together, come to agreement, give guarantees, and govern their subsequent conduct by agreements reached, or else suffer a tangible penalty. Thinking and desiring, no matter how subjective, are a preliminary, tentative and inchoate mode of action. They are "overt" behavior of a communicated and public form in process of construction, and behavior involves change of objects which tests the meanings animating behavior.

There is a peculiar intrinsic privacy and incommunicability attending the preparatory intermediate stage. When an old essence or meaning is in process of dissolution and a new one has not taken shape even as a hypothetical scheme, the intervening existence is too fluid and formless for publication, even to one's self. Its very existence is ceaseless transformation. Limits from which and to which are objective, generic, stateable; not so that which occurs between these limits. This process of flux and ineffability is intrinsic to any thought which is subjective and private. It marks "consciousness" as bare event. It is absurd to call a recognition or a conception subjective or mental because it takes place through a physically or socially numerically distinct existence; by this logic a house disappears from the spatial and material world when it becomes *my* house; even a physical movement would then be subjective when referred to particles.

Recognition of an object, conception of a meaning may be mine rather than yours; yours rather than his, at a particular moment; but this fact is about me or you, not about the object and essence perceived and conceived. Acknowledgment of this fact is compatible however with the conviction that after all there would be no *objects* to be perceived, no meanings to be conceived, if at some period of time uniquely individualized events had not intervened. There is a difference in kind between the thought which manipulates received objects and essences to derive new ones from their relations and implications, and the thought which generates a new method of observing and classifying them. It is like the difference between readjusting the parts of a wagon to make it more efficient, and the invention of the steam locomotive. One is formal and additive; the other is qualitative and transformative.

He knows little who supposes that freedom of thought is ensured by relaxation of conventions, censorships and intolerant dogmas. The relaxation supplies opportunity. But while it is a necessary it is not a sufficient condition. *Freedom* of thought denotes freedom of *thinking;* specific doubting, inquiring, suspense, creating and cultivating of tentative hypotheses, trials or experimentings that are unguaranteed and that involve risks of waste, loss, and error. Let us admit the case of the conservative; if we once start thinking no one can guarantee where we shall come out, except that many objects, ends and institutions are surely doomed. Every thinker puts some portion of an apparently stable world in peril and no one can wholly predict what will emerge in its place.

CHAPTER FIVE

CONSCIOUSNESS, MEANING AND PERCEPTION

EVENTS AND OBJECTS[1]

The discussion has explicitly gone on the basis that *what* is perceived are meanings, rather than just events or existences. In this respect, the view presented agrees with classic teaching, according to which perception, apprehension, lays hold of form, not of matter. I believe this view properly understood is inherently sound; the error in the classic theory lies in its accompanying assumption that all perceptions are intrinsically cognitive.

When it is denied that we are conscious of *events* as such it is not meant that we are not aware of *objects*. Objects are precisely what we are aware of. For objects are events *with* meanings; tables, the milky way, chairs, stars, cats, dogs, electrons, ghosts, centaurs, historic epochs and all the infinitely multifarious subject-matter of discourse designable by common nouns, verbs and their qualifiers. So intimate is the connection of meanings with consciousness that there is no great difficulty in resolving "consciousness," as a recent original and ingenious thinker has done, into knots, intersections or complexes of universals.

Serious difficulty sets in however when *events* are resolved into such combinations. The matter is referred to here not to be argued; but to indicate that a "realist" has gone even further than the theory now presented goes in identifying the subject-matter of which there is awareness with meanings, or at least with universals which, as simple subject-matter, colors, sounds, etc., and as complex subject-matter, plants, animals, atoms, etc., are precisely the same as meanings. To cause existences in their particularity to disappear into combinations of universals is at least an extreme measure. And the present thesis sticks to the common-sense belief that universals, relations, meanings, are of and about existences, not their exhaustive ingredients.

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[1] From *Experience and Nature*, pp. 317-319; 324-326.

Common-sense has no great occasion to distinguish between bare events and objects; objects being events-with-meanings. Events are present and operative *anyway;* what concerns us is their meanings expressed in expectations, beliefs, inferences, regarding their potentialities. The nearest approach that occurs in ordinary life to making the distinction is when there occurs some brute, dumb shock, which we are constrained to interpret, to assign meaning to, that is, to convert into an object. Such situations supply direct empirical evidence of the difference between events and objects; but common-sense does not need to formulate the difference as a distinction. Events have effects or consequences anyway; and since meaning is awareness of these consequences before they actually occur, reflective inquiry which converts an event into an object is the same thing as finding out a meaning which the event already possesses by imputation. It is the essence of common sense, one might say, to treat potentialities as given actualities; since its interest is universally practical, bent upon fruitage, there is no need to note its bent in any particular case. The eventual outcome is for it the "reality" of the present situation.

But not so with philosophic discourse. Philosophy must explicitly note that the business of reflection is to take events which brutely occur and brutely affect us, to convert them into objects by means of inference as to their probable consequences. These are the meanings imputed to the events under consideration. Otherwise philosophy finds itself in a hopeless impasse. For, apart from making a distinction between events and objects, it has no way of differentiating cognitive from esthetic and literary meanings, and within cognitive meanings it has no way of distinguishing the valid from the invalid. The outcome of failure in this respect is exemplified in those discussions which find an inherent and generic cognitive problem in the occurrence of dreams, reveries and hallucinations, a problem other than the scientific one of ascertaining their antecedents and effects. For if intrinsic cognitive intent is ascribed to all perceptions, or forms of awareness, which are alleged to pick out a "reality" to which they refer as an image or sign, dreams, etc., have to be squared to this assumption. Draw the distinction between events and objects, and dream-objects are just what they are, events with one kind of meaning, while scientific-objects are just what they are, events with another kind of meaning, a kind that involves an extrinsic and additive function not contained in dream-objects.

In formulating the distinction between existences and objects of reference, whether cognitive, esthetic or moral, philosophy does not exact that violent break with common sense which is found in the assertion of idealism that events themselves are composed of meanings. Nor does it involve that break with common sense found in epistemological realism, with its assertion of a direct dealing of mind with naked existences unclothed by the intervention of meanings. Philosophy has only to state, to make explicit, the difference between events which are challenges to thought, and events which have met the challenge and hence possess meaning. It has only to note that bare occurrence in the way of having, being, or undergoing is the provocation and invitation to thought—seeking and finding unapparent connections, so that thinking terminates when an object is present: namely, when a challenging event is endowed with stable meanings through relationship to something extrinsic but connected.

There is nothing new in the facts contained in this statement. It was an axiom of the classic theory that form, not matter, is the object of knowledge. And many other theories, in spite of the violence with which they nominally protest against the statement that existences as such are not the objects of knowledge, contain the essential facts, though in an incredible form. It is straining at a gnat and swallowing a camel to balk at the proposition that we mentally are concerned with events in their meanings and not in themselves, and at the same time to welcome the proposition that the immediate objects of all consciousness are sensations and complexes of sensations, termed images or ideas. For if by sensations (or by sensa) is meant not mere shocks in feeling, but something qualitative and capable of objective reference, then sensations are but one class of meanings. They are a class of meanings which embody the mature results of elaborate experimental inquiry in tracing out causal dependencies and relationships. This inquiry depends upon prior possession of a system of meanings, physical theories of light, sound, etc., and of knowledge of nervous structures and functions.

MEANINGS ARE NOT NAMES [2]

The idea put forth about the connection of meaning with language is not to be confused with traditional nominalism. It does not imply that meaning and essence are adventitious and arbitrary. The defect of nominalism lies in its virtual denial of interaction and association. It regarded the word not as a mode of social action with which to realize the ends of association, but as an expression of a ready-made, exclusively individual, mental state; sensation, image or feeling, which, being an existence, is necessarily particular. For the sound, gesture, or written mark which is involved in language is a particular existence. But as such it is not a *word*, and it does not become a word by declaring a mental existence; it becomes a word by gaining meaning; and it gains meaning when its use establishes a genuine community of action. Interaction, operative relationship, is as much a fact about events as are particularity and immediacy. Language and its consequences are characters taken on by natural interaction and natural conjunction in specified conditions of organization. Nominalism ignores organization, and thus makes nonsense of meanings.

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[2] From *Experience and Nature*, pp. 184-185.

Language is specifically a mode of interaction of at least two beings, a speaker and a hearer; it presupposes an organized group to which these creatures belong, and from whom they have acquired their habits of speech. It is therefore a relationship, not a particularity. This consideration alone condemns traditional nominalism. The meaning of signs moreover always includes something common as between persons and an object. When we attribute meaning to the speaker as *his* intent, we take for granted another person who is to share in the execution of the intent, and also something, independent of the persons concerned, through which the intent is to be realized. Persons and things must alike serve as means in a common, shared consequence. This community of partaking is meaning.

MEANINGS ARE HYPOTHETICAL[3]

Facts may be regarded as existing qualitatively and in certain spatial and temporal relations; when there is knowledge another relation is added, that of one thing meaning or signifying another. Water exists, for example, as water, in a certain place, in a certain temporal sequence. But it may signify the quenching of thirst; and this signification-relation constitutes knowledge.

Water means quenching thirst; it is drunk, and death follows. It was not water, but a poison which "looked like" water. Or it is drunk, and is water, but does not quench thirst, for the drinker is in an abnormal condition and drinking water only intensifies the thirst. Or it is drunk and quenches thirst; but it also brings on typhoid fever, being not merely water, but water plus germs. Now all these events demonstrate that error may appertain quite as much to the characterization of existing things, suggesting or suggested, as to the suggestion *qua* suggestion. There is no ground for giving the "things" any superior reality. In these cases, indeed, it may fairly be said that the mistake is made because qualitative thing and suggested or meaning-relation were *not* discriminated. The "signifying" force was regarded as a part of the direct quality of the given fact, quite as much as its color, liquidity, etc.; it is only in another situation that it is discriminated as a relation instead of being regarded as an element.

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[3] From *Essays in Experimental Logic*, pp. 246-249.

It is quite as true to say that a thing is called water because it suggests thirst-quenching as to say that it suggests thirst-quenching because it is characterized as water. The knowledge function becomes prominent or dominant in the degree in which there is a conscious discrimination between the fact-relations and the meaning-relations. And this inevitably means that the "water" ceases to be *surely* water, just as it becomes doubtful or hypothetical whether this thing, whatever it is, really means thirst-quenching. If it really means thirst-quenching, it is water; so far as it may not mean it, it perhaps is not water. It is now just as much a question *what* this *is* as what it means. Whatever will resolve one question will resolve the other. In just the degree, then, in which an existence or thing gets intellectualized force or function, it becomes a fragmentary and dubious thing, to be circumscribed and described for the sake of operating as *sign*, or clue of a *future* reality to be realized through action.

Only as "reality" is reduced to a sign, and questions of its nature as sign are considered, does it get intellectual or cognitional status. The bearing of this upon the question of practical character of the distinctions of fact and idea is obvious. No one, I take it, would deny that action of some sort *does* follow upon judgment; no one would deny that this action *does* somehow serve to test the value of the intellectual operations upon which it follows. But if this subsequent action is *merely* subsequent, if the intellectual categories, operations, and distinctions are complete in themselves, without inherent reference to it, what guaranty is there that they pass into relevant action, and by what miracle does the action manage to test the worth of the idea? But if the intellectual identification and description of the thing are as tentative and instrumental as is the ascription of significance, then the exigencies of the active situation are operative in all the categories of the knowledge situation. Action is not a more or less accidental appendage or afterthought, but is undergoing development and giving direction in the entire knowledge function.

MEANINGS AS ESSENCE AND ACCIDENT[4]

The same existential events are capable of an infinite number of meanings. Thus an existence identified as "paper," because the meaning uppermost at the moment is "something to be written upon," has as many other explicit meanings as it has important consequences recognized in the various connective interactions into which it enters. Since possibilities of conjunction are endless, and since the consequences of any of them may at some time be significant, its potential meanings are endless. It signifies something to start a fire with; something like snow; made of wood-pulp; manufactured for profit; property in the legal sense; a definite combination illustrative of certain principles of chemical science; an article the invention of which has made a tremendous difference in human history, and so on indefinitely. There is no conceivable universe of discourse in which the thing may not figure, having in each its own characteristic meaning. And if we say that after all it is "paper" which has all these different meanings, we are at bottom but asserting that all the different meanings have a common existential reference, converging to the same event. We are virtually asserting that the *existence* whose usual, standardized meaning in discourse is paper, also has a multitude of other meanings; we are saying in effect that its existence is not exhausted in its being paper, although paper is its ordinary meaning for human intercourse.

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[4] From *Experience and Nature*, pp. 319-320; 182-183.

Essence is but a pronounced instance of meaning; to be partial, and to assign *a* meaning to a thing as *the* meaning is but to evince human subjection to bias. Since consequences differ also in their consequence and hence importance, practical good sense may attach to this one-sided partiality, for the meaning seized upon as essence may designate extensive and recurrent consequences. Thus is explained the seeming paradox of the distinction and connection of essence and existence. Essence is never existence, and yet it is the essence, the distilled import, of existence; the significant thing about it, its intellectual voucher, the means of inference and extensive transfer, and object of esthetic intuition. In it, feeling and understanding are one; the meaning of a thing is the sense it makes.

Since the consequences which are liked have an emphatic quality, it is not surprising that many consequences, even though recognized to be inevitable, are regarded as if they were accidental and alien. Thus the very essence of a thing is identified with those consummatory consequences which the thing has when conditions are felicitous. Thus *the* essence, one, immutable and constitutive, which *makes* the thing *what* it is, emerges from the various meanings which vary with varying conditions and transitory intents. When essence is then thought to contain existence as the perfect includes the imperfect, it is because a legitimate, practical measure of reality in terms of importance is illegitimately altered into a theoretical measure.

UNIVERSALITY OF MEANINGS[5]

Every meaning is generic or universal. It is something common between speaker, hearer and the thing to which speech refers. It is universal also as a means of generalization. For a meaning is a method of action, a way of using things as means to a shared consummation, and method is general, though the things to which it is applied are particular. The meaning, for example, of portability is something in which two persons and an object share. But portability after it is once apprehended becomes a way of treating other things; it is extended widely. Whenever there is a chance, it is applied; application ceases only when a thing refuses to be treated in this way. And even then refusal may be only a challenge to develop the meaning of portability until the thing can be transported. Meanings are rules for using and interpreting things; interpretation being always an imputation of potentiality for some consequence.

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[5] From *Experience and Nature,* pp. 187-188.

It would be difficult to imagine any doctrine more absurd than the theory that general ideas or meanings arise by the comparison of a number of particulars, eventuating in the recognition of something common to them all. Such a comparison may be employed to check a suggested widened application of a rule. But generalization is carried spontaneously as far as it will plausibly go; usually much further than it will actually go. A newly acquired meaning is forced upon everything that does not obviously resist its application, as a child uses a new word whenever he gets a chance or as he plays with a new toy. Meanings are self-moving to new cases. In the end, conditions force a chastening of this spontaneous tendency. The scope and limits of application are ascertained experimentally in the process of application. The history of science, to say nothing of popular beliefs, is sufficient indication of the difficulty found in submitting this irrational generalizing tendency to the discipline of experience. To call it *a priori* is to express a fact; but to impute the *a priori* character of the generalizing force of meanings to *reason* is to invert the facts. Rationality is acquired when the tendency becomes circumspect, based upon observation and tested by deliberate experiment.

OBJECTIVITY OF MEANINGS[6]

Meaning is objective as well as universal. Originating as a concerted or combined method of using or enjoying things, it indicates a possible interaction, not a thing in separate singleness. A meaning may not of course have the particular objectivity which is imputed to it, as whistling does not actually portend wind, nor the ceremonial sprinkling of water indicate rain. But such magical imputations of external reference testify to the objectivity of meaning as such. Meanings are naturally the meaning of something or other; difficulty lies in discriminating the right thing. It requires the discipline of ordered and deliberate experimentation to teach us that some meanings delightful or horrendous as they are, are meanings communally developed in the process of communal festivity and control, and do not represent the polities, and ways and means of nature apart from social arts. Scientific meanings were superadded to esthetic and affectional meanings when objects instead of being defined in terms of their consequences in social interactions and discussion were defined in terms of their consequences with respect to one another. This discrimination permitted esthetic and affective objects to be freed from magical imputations, which were due to attributing to them *in rerum natura* the consequences they had in the transmitted culture of the group.

Meanings are objective because they are modes of natural interaction; such an interaction—although primarily between organic beings—as includes things and energies external to living creatures. The regulative force of legal meanings affords a convenient illustration. A traffic policeman holds up his hand or blows a whistle. His act operates as a signal to direct movements. But it is more than an episodic stimulus. It embodies a rule of social action. Its proximate meaning is its near-by consequences in coordination of movements of persons and vehicles; its ulterior and permanent meaning—essence—is its consequence in the way of security of social movements. Failure to observe the signal subjects a person to arrest, fine or imprisonment. The essence embodied in the policeman's whistle is not an occult reality superimposed upon a sensuous or physical flux and imparting form to it; a mysterious subsistence somehow housed within a psychical event. Its essence is the rule, comprehensive and persisting, the standardized habit, of social interaction, and for the sake of which the whistle is used. The pattern, archetype, that forms the essence of the whistle as a particular noise, is an orderly arrangement of the movements of persons, and vehicles established by social agreement as its consequence. This meaning is independent of the psychical landscape, the sensations and imagery, of the policeman and others concerned. But it is not on that account a timeless spiritual ghost nor pale logical subsistence divorced from events.

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[6] From *Experience and Nature*, pp. 188-191.

The case is the same with the essence of any non-human event, like gravity, or virtue, or vertebrate. Some consequences of the interaction of things concern us; the consequences are not *merely* physical; they enter finally into human action and destiny. Fire burns and the burning is of moment. It enters experience; it is fascinating to watch swirling flames; it is important to avoid its dangers and to utilize its beneficial potencies. When we name an event, calling it fire, we speak proleptically; we do not name an immediate event; that is impossible. We employ a term of discourse; we invoke a meaning, namely, the potential consequences of the existence. The ultimate meaning of the noise made by the traffic officer is the total consequent system of social behavior, in which individuals are subjected, by means of noise, to social coördination; its proximate meaning is a coördination of the movements of persons and vehicles in the neighborhood and directly affected. Similarly the ultimate meaning, or essence, denominated fire, is the consequences of certain natural events within the scheme of human activities, in the experience of social intercourse, the hearth and domestic altar, shared comfort, working of metals, rapid transit, and other such affairs. "Scientifically," we ignore these ulterior meanings. And quite properly; for when a sequential order of changes is determined, the final meaning in immediate enjoyments and appreciations is capable of control.

THE RELATION OF MEANING OR ESSENCE TO FACT OR EXISTENCE [7]

The capacity of essences to enter readily into any number of new combinations, and thereby generate further meanings more profound and far reaching than those from which they sprang, gives them a semblance of independent life and career, a semblance which is responsible for their elevation by some thinkers into a realm separate from that of existence and superior to it. Consider the interpretations that have been based upon such essences as four, plus, the square root of minus one. These are at once so manipulable and so fertile in consequences when conjoined with others that thinkers who are primarily interested in their performances treat them not as significant terms of discourse, but as an order of entities independent of human invention and use. The fact that we can watch them and register what happens when they come together, and that the things that happen are as independent of our volition and expectation as are the discoveries of a geographic exploration, is taken as evidence that they constitute entities having subsistent Being independently not only of us but of all natural events whatever.

Alternatives are too narrowly conceived. Because meanings and essences are not states of mind, because they are as independent of immediate sensation and imagery as are physical things, and because nevertheless they are not physical things, it is assumed that they are a peculiar kind of thing, termed metaphysical, or "logical" in a style which separates logic from nature. But there are many other things which are neither physical nor psychical existences, and which are demonstrably dependent upon human association and interaction. Such things function moreover in liberating and regulating subsequent human intercourse; their essence is their contribution to making that intercourse more significant and more immediately rewarding. Take the sort of thing exemplified in the regulation of traffic. The sound of a whistle is a particular existential event numerically separate, with its own peculiar spatial temporal position. This may not be said of the rule or method of social cooperative interaction which it manifests and makes effective. A continuous way of organized action is not a particular, and hence is not a physical or psychical existence. Yet the consequences of using the method of adjusting movements, so that they do not interfere with one another, have both a physical and a mental phase. Physically, there is modification of the changes in space which would otherwise occur. Mentally, there are enjoyments and annoyances which would not otherwise happen. But no one of these incidents nor all of them put together form the essence or ulterior meaning of the sound of the whistle; they are qualifications of a more secure concert of human activity which, as a consequence of a legal order incarnate in the whistling, forms its significance.

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[7] From *Experience and Nature*, pp. 195-197.

Discussion of meaning and essence has reached such an impasse and is barbed with such entanglements, that it is further worth while to suggest consideration of legal entities as indicative of escape from the disjunction of essence from existence. What is a Corporation, a Franchise? A corporation is neither a mental state nor a particular physical event in space and time. Yet it is an objective reality, not an ideal Realm of Being. It is an objective reality which has multitudinous physical and mental consequences. It is something to be studied as we study electrons; it exhibits as does the latter unexpected properties, and when introduced into new situations behaves with new reactions. It is something which may be conducted, facilitated and obstructed, precisely as may be a river. Nevertheless it would not exist nor have any meaning and potency apart from an interaction of human beings with one another, an interaction in which external things are implicated. As legal essence, or concerted method of regulated interaction, corporation has its own and its developing career.

A NATURALISTIC ACCOUNT OF PERCEPTION[8]

In its primary and unsophisticated use, sense-perception signifies observation and recognition of objects by means of bodily organs, eyes, ears, hands, nose, etc. As a term, it is like pen-writing, brush-painting, hammer-pounding, steel-engraving. It tells nothing about the nature of perceiving, but conveys information about the means by which the act of perceiving occurs, just as the other phrases specify tools through which acts take place. However, in each case the act and its characteristic consequences are modified by special traits of the organs and means which are involved. Thus questions arise: In what way do the employed instrumentalities affect the act and thereby its results? In carrying on such inquiries, investigators are led to discoveries far outside the scope of the first questions. In connection with acts performed by the use of tools, not only are their specific effects learned, but principles of friction, mechanical equivalents of heat, the correlation of energies are ascertained. Similarly, in connection with the use of the eyes, ears, etc., in the act of perceiving, not only are the particular functions of different organic structures learned, but such things as the effects of color blindness, astigmatism, of muscular adjustments, of refraction by the lens, and in general the participation of nerve-elements with external physical changes in bringing about the occurrence of certain perceived qualities. But all this concerns the things perceived. It does not affect the act of perceiving. Hence such problems as present themselves are of the same order as those hit upon in any naturalistic inquiry. They do not concern the nature of perception, awareness, or knowledge. There is nothing peculiar, nothing unique about them.

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[8] From *The Journal of Philosophy*, Vol. XXII, pp. 596-605.

The adjectives "sense" and "sensory" are prefixed to qualities as well as to the act of perceiving. Colors, sounds, odors, rough, smooth, etc., are named "sense-qualities." Here the term "sense" is prefixed by a figure of speech. The qualities themselves are not sensory; "sensory" designates an important condition of their occurrence, not a constituent in their nature. By precisely a similar usage of speech, a house, factory, barn is called a building, meaning that which is the outcome of the operation of building; no one is misled by the word into transferring the properties of the act of building into the house or factory. So a picture is named a painting or an oil-color or a water-color. In each case the name is given because of the consequences of the means of its occurrence upon the object produced, yet its traits, uses, and career when produced are independent of the act of generation. We might also call "sense" qualities vibration qualities, or cerebral qualities, or by the name of any other factor which conditions their occurrence. In short, perception does not affect or infect the nature of the qualities perceived, although sense-*organs* and their structural connections, which are the means of perceiving, do affect the properties of the thing produced. But there is nothing unique or peculiar about this fact. The same thing happens in any natural sequence when traits of a consequence are correlated with traits of interacting antecedents.

The significance of the point of view thus briefly indicated lies in its contrast with the epistemological theory of sense-perception; in contrast with that theory, the one set forth may be termed naturalistic. By the epistemological theory, sense-perception means a unique kind of perception, and sense quality means a kind of quality so distinctive that it may be called psychical or mental. Upon the naturalistic theory, perception is one and the same, and prefixed adjectives, like sensory, refer to its means or organs; the difference between an object perceived by means of the senses and an object recalled by means of some other organic structure is comparable to the difference between any two concrete things, say between a cat and dog, land and water. The difference is in one factual subject-matter, "sense-presentation" having for its subject-matter a thing in some *present* space-relation; memory-presentation that thing in a specified *past* temporal relation. But upon the other theory, perception is made unique and heterogeneous because of its "sense" nature, and hence the objects of the two modes of presentation are so different in kind that a problem is constituted. And the same thing occurs in the case of contrast of things presented as "conceptual" (or reflectively determined) objects, in distinction from "sense" objects. In one theory the difference between colors and, say, electro-magnetic disturbances is a difference in specified facts in one and the same world of objects, comparable again to the difference between land and water as objects of perception; on the other theory, there is a gulf in kind between them, and we have to decide which is "the reality," or else find some method of "reconciling" the reality of the one kind of object with that of the other kind of object.

There is, therefore, a question of fact behind the epistemological question. Until this question of fact has been decided the epistemological problem may possibly be a wholly artificial question due to assuming as a fact something which is not a fact. Is the prefixing of "sense" or "sensory" to "perception" metaphorical, transferring by an intrinsically harmless and common figure of speech traits of the tools and effects of an act to the act itself? Is it properly analogous to water-color painting and oil-painting, to etching and engraving, as names for pictures? Or does it properly denote a distinctive and unique kind of presentation, "sensory" affecting and qualifying throughout the intrinsic nature of the being aware, and thereby determining that of which we are aware to be a distinctive and unique kind of thing?

This question is primarily, as indicated, a question of fact. The factual reasons assigned for taking the second alternative have to do with various "abnormalities" in connection with perception by means of sense-organs. There is an almost endless list of such occurrences so that only a few samples need be given. They are such affairs as double images when the object remains one; the changes which take place in an image while the object remains unaltered—as seeing a thing dance when the eye-ball is pushed; a stick seemingly bent in water; the change in the visual form of things seen in different perspectives and angles; the change in apparent pitch of sound with velocity of approach or removal; converging railway tracks, etc., to say nothing of outright illusions. In the words of a contemporary epistemological writer: "The point is, that all these cases can easily be described in terms of actual and potential *sensations*, while a description in terms of *objects* leads to grave difficulties." The contrast drawn by the italicized words, "sensations" and "objects," is equivalent to the difference between statements in terms of specified subject-matters on one hand, and a unique peculiarity of perception on the other; "sensations" meaning, as here used, a peculiar kind of existence called psychical.

Discussion of facts is, however, bound up with difficulties arising from implications of terminology and from diverse theories inherited from previous philosophizing.

In the first place, traditional ideas have had an effect through language which persisted after the beliefs that had given it significance and pertinence had disappeared. "Sense qualities" is, historically, a survival of *sensible* qualities: but while "sense" prefixed to qualities has no import save that of causal reference, "sensible" was—given the metaphysical creed which once obtained—a genuine characterization of some qualities in distinction from others, namely, "intelligible" qualities. Nature was divided, cosmically, into kind of objects, or at least of objects with two kinds of properties. One set was permanent; the other was of nature in movement or change; one was of things as actualized, the other of things *qua* potential. Since the properties of natural change were actualized in animals, including man, through sense-organs, these qualities were fittingly called sensible. The "ible" clearly implies potentiality, requiring sense for their actualization into sense-forms or sensory essences. Intellig*ible* forms, on the other hand, were actualized through the intellect. Thus the term "sensible qualities" had a characteristic and, given the premises, legitimate meaning. When modern physical science asserted the homogeneity of all things in the physical world and abandoned the category of potentiality and actuality for that of physical contact and motion ("efficient causality"), the term "sensible qualities" still continued in use. It was "rationalized" by interpreting it to mean qualities due to perception in distinction from qualities belonging to things themselves.

Secondly, epistemological arguments which make qualities, in whose generation sense-organs have a part, to be of a different order from things, are pervasively infected with an ambiguity which consists in treating empirical things (trees, stones, stars, candle-flames, *etc.*, all the things designated by ordinary common nouns) now as the causes of qualities, and now as correlated groups of the qualities. Thus we are told that a *tree* affects the *optic nerve*—(or the light reflected from a tree), giving rise to "sensations" of light and color; that a *stick*, partly in the *air* and partly in the *water*, through interaction with *sense-organs* and *brain*, occasions "sensations" which in turn give rise to a perception of a bent stick. Now it is clear that all the italicized words, whether naming things within or without the organism, designate empirical objects, not the objects of distinctively physical science.

They are all, so to speak, in the same boat with colors and figures. The same is true, of course, when the finger pressing upon the eye-balls is said to cause the perception of double images, *etc.*, *etc.* Now a moment's reflection shows that tree, stick, water, air, finger, and all such objects as figure in these arguments can not be opposed as real or as physical objects to sensations as mental. For these things, by the logic of the epistemologists, are themselves groups or combinations of "sensations," or of their equivalent mental "images." They are, in Locke's language, themselves complex modes, and can be distinguished from the sensation or sense quality only as the compound from the simple. They are of the same order, not of a different order. And if we do not use the language of epistemology, but of common sense, we are dealing with things and *their* qualities.

The thing which is to be distinguished from a quality as its cause is not tree, finger, water, *etc.*, but certain molecular disturbances. The latter are contrasted with the empirical thing, the finger, as well as with the immediate color quality. The bearing of this fact upon our present topic may be seen by taking the well-worn illustration of a penny seen now as a round flat disc, now as an ellipse with various degrees of distortion, and now, seen edgewise, as a curved line—or from a distance as a straight line. Unless there is a passage from one genus, from one universe of discourse to another, the facts must be stated in one or other of the two following ways: (1) Certain molecular disturbances in interaction with another set of molecular arrangements—empirically identified as the human organism—*cause* various phenomena of shape to appear. The round, flat form is no more the "real" (physical) object than are the ellipses and lines; the latter are not appearances of it, but they and it alike are "appearances" due to physical, or physical and physico-chemical changes. "Appearance" here has no other meaning than *effects*, effects used, as effects are everywhere used in scientific inquiry, to make inferences regarding their cause. In this case, the problems involved are similar to those found in any scientific inquiry where certain facts serve as evidence from which to infer something else, externally of quite a different sort. Thus a form in a rock is used to tell of the presence and traits of an animal which lived in some by-gone age. It is thus an "appearance" of that animal: that is, it is an effect which gets its full meaning only when placed in connection with something else of which it serves as sign or evidence. (2) The other mode of statement is concerned simply with empirical relations between what is empirically perceived. The relations with which it deals are those of whole and part, or of a thing and its "belongings," not those of inference from what is perceived to some hypothetical or inferred cause. Thus an object which when placed in a certain position with reference to the body presents a flat, round form, when otherwise placed, presents an elliptical form, or that of a curved edge. Or, suppose we begin with a form which is that of a narrow curved band; we find that it can be placed in a serial order of other forms, some elliptical and some round and that a single formula can be found for the entire serial order, just as some numbers which first present themselves at random, or as a jumble, are finally arranged in a series having a principle of connection. There is no question of cause and effect, of "reality" and "appearance," even in the logical, non-epistemological sense, found in our previous case. There is simply and only a question of the correlation according to a constant formula of various qualities, the total correlated series constituting the object, say a penny. "It," the penny, has or is a series of phases, and physical conditions are such that the phases can not occur simultaneously but only serially—just as there is a series of phases by a determinable formula of gas, liquid, and solid. We may ask which most frequently occurs, and we may take, if we please, the frequency mode, for *practical* purposes, as the standard. But there is no sense in regarding one of them exclusively as the real and the others as its appearances. Every conceivable form or phase may, by the formula of the series, be taken as real in turn and the others as its appearances. But the facts denoted by this language are simply the existence of a series of a determined type.

There are thus two universes of discourse. In one we deal with the physical, existential relations of causal connection, as between colors, sounds, *etc.*, and their conditions, such as vibrations of a physical medium. In the other, we deal with the integrations of various perceptual objects into a whole. The problem is not one of causation, but neither is it one of the connection of a perceived object with an inferred object. It is like the problem of, say, getting the meaning of a sentence by integrating the meaning of words, or, *vice-versa*, of defining the meaning of a word otherwise unknown by considering its contextual connections. A problem different from the problems of physical science and from those of ordinary empirical interpretation arises only if we mix and confuse terms taken from the two different universes of discourse.

Let "real object" be taken at one juncture in the discussion to signify the cause of certain qualitative and immediate effects, and at another juncture as the correlation of these effects into a single whole, and the confusion will generate the epistemological problem of perception as that is ordinarily stated. The confusion is increased by the ambiguities of the word "appear." Sometimes it signifies "be the effect of," as color is the effect of physical rays, or a fossil stone is the "appearance" of a once living animal; sometimes it signifies "be evident, apparent, immediately open to perception," as something before me in contrast with something in the next room, or the edge of a coin in contrast with the entire coin, or a particular rôle of an actor in contrast with the whole set of rôles which define the actor. Then the confused mixture of the two senses generates the idea of "appearance" as distinct from the "real," and hence the problem of the relation of the perceived object as, metaphysically, an appearance in contrast with the unperceived but real object.

In the third place, there is the persistent notion, taken over from Locke by psychological doctrine, that the first qualities perceived are simple and independent: that "red" is sensed before blood or a dress is perceived; blue before the sky, sweet before sugar, orange color and a peculiar odor before *an* orange, *etc.* This is pure superstition. Yet if it is surrendered, the whole current distinction between sensation and perception as modes of "consciousness" or of knowing objects disappears. The so-called "sensation" signifies simply a perception of a *discriminated* quality; red—the limit of perceptual discrimination by means of a given organ, is not *a* sensation; it is a quality which we perceive, differing only from the perception of sunset in its relative simplicity and isolation, a difference which is not in any sense original and primitive, but which is the product of discerning analysis purposefully undertaken, as much so as the chemical determination of hydrogen as simple and different from water the compound. As a matter of fact (though facts have come to have little to do with discussion of these matters), a child recognizes its dresses long before it identifies colors; and it learns to distinguish colors as *marks*, that is as *means* of more effective discrimination between different dresses—or toys or other objects. When the homogeneity of perceptual qualities and objects is acknowledged and firmly held to, one important phase of the so-called epistemological problem of perception assumes the proper form of a familiar logical situation—the relation of implication, of sign, mark to that which is signified.

Fourthly, the question of the spatial location of qualities perceived by means of the senses is one of physics and not of epistemology. The case of the whereabouts of illusory objects is usually cited as the final clincher to demonstrate the psychical character of the characteristic objects of sense-perception. Where is the ghost that isn't there? Where is the imaged tree which mōves when the eye-ball is pushed? Where is the bent stick when the straight stick is plunged in water? It has even been suggested that mental or psychical may be defined as that which physical or public space refuses to accept and assign place to, so conclusive is this type of question felt to be.

The source of this difficulty is failure to make a critical analysis of the conception of "where," of situs. Where, for example, is an explosion? Where is an echo? Where is the "magnetism" that causes a sensitized needle to assume a certain directional position? Wherever there is an event, there is interaction, and interaction entails the conception of a *field*. No "field" can be precisely delimited; it extends wherever the energies involved in the interaction operate and as far as any redistributions of energy are effected. The field can be limited *practically*, as can all matters of degree; it can not be existentially located with literal exactness. Thus the place of most *intense* disturbance in an earthquake may be located and, with sufficient variety of seismographic apparatus, the boundaries of its *appreciable* presence may be mapped out. But these boundaries are set practically by capacity to detect and record changes; they are not absolute in any existential sense. One might say that existentially the field of the earthquake is the entire universe since the redistribution of energies extends indefinitely. This would be correct, theoretically, though practically of no significance.

In similar fashion the bent rays of light in the case of the stick partly in air and partly in water are literally an interaction field determined by (presumably) electromagnetic disturbances, physiological structures, and a refracting agency. It is not "in" the organism, nor is it "at" a highly delimited spot in the environment. The place where light rays impinge on the refracting thing with its different angles of refraction in two media of different density may form one focus in the field; the point where the refracted rays impinge on the molecular structures forming the optical apparatus may be another focus. But these, like foci of an ellipse, are determinations in a wider field. The sun—or other source of light—is a part of the "where" of the bent rays, just as much as some remote portions of the interior of the earth are a part of the "where" of an earthquake.

Specific location is always a relationship to a *further* event; it is additive in character. We "locate" an explosion *at* a given spot because the act of generating or preventing the explosion, the act of control of occurrence, is directed there. If we knew enough and had the power to occasion and to prevent earthquakes, we should undoubtedly say that an earthquake is *where* the act of control is applied. A disease involves the entire organism and (ultimately) some extra-organic interacting event, but its "seat" is where remedial measures most effectively take place. A man's body may be in Europe, since in certain respects he may be reached there most effectively, while his residence is in Florida and his domicile in New York. The demand to know "where" are the images of the tree that move when the eye-ball is pushed is an ambiguous question. Literally they are wherever a certain interaction of at least three factors is taking place. From the everyday practical standpoint, that of "common-sense," "where" signifies the point at which action should be directed to control the occurrence of the phenomenon.

The fact that "where" in ordinary usage contains a reference to an act, originating in an organic agent, is a commonplace. But unfortunately it is not usual to employ the commonplace in discussing questions of this sort. To "common-sense," a thing is located with respect to the locomotion or other movement of the organism which is required to attain or prevent certain results. That a thing is so many paces away in front, to the right and a little above, signifies that the human body must move so far ahead, swerve to one side and raise some part of itself in order to procure certain consequences. Every psychological book is full of instances of the fact that specific location is not inherent or intrinsic, but has reference to the actual or potential behavior of an organism in effecting a course of events. The location of the stick which is in the air is related to a certain habit of reaching and handling. This habit being adapted to a certain medium does not work correctly when the refraction of light occurs under unusual conditions. A wrong, an inefficient, unadapted act hence takes place. When the habit is re-made, specific location again takes place correctly.

There does not appear to be any further mystery in the cases which are frequently employed to show that some objects of perception are mental in nature. Any one who learns to use a microscope, or even a mirror, learns that specific location is a practical matter, not a literal existential one, and that unusual conditions of the coördination of acts of seeing and reaching occasion difficulty in locating until a new habit is set up. That certain images of light can not be located in space signifies, then, only that the practical act of reaching and grasping does not in their case, without pains and practice, fit into the established systems of habits which customarily determine the seat, residence, or situs of an affair, the latter being physically and literally a complex interaction, covering a vast field. Indeed, the field is so vast and illimitable that, strictly speaking, the interaction may be said to be "at" nature rather than "in" it, in the practical sense in which we quite properly use the terms "in" and "at." The theory criticized is thus also guilty of the third of the misconceptions we have mentioned. It passes surreptitiously from ordinary perceived spatial relations of perceived things to "physical" space in the sense of space as the object of physical science. If we stick strictly to physical terms, there is no peculiar problem, but only the ordinary scientific problem of determining a field. If we stick to empirical perceptual terms, there is only the problem of correct practical adjustments in reaching, grasping, handling, *etc.*

I do not suppose that the four misconceptions which have been considered exhaust the list of antecedent confusions and mistakes which bring about the conversion of a naturalistic view into an epistemological one. But they are important contributing factors. Until these preliminary ambiguities and shiftings have been got rid of, there seems to be little hope that continued discussion of the problem of perception which proceeds without any reference to them will bring us nearer to agreement and settlement. When they are disposed of, as far as there remain anything more than scientific questions of a familiar type, the residual problems concern metaphysical matters, such as import of the causal relationship and the nature and status of qualities.

PERCEPTION, CONSCIOUSNESS AND COGNITION[9]

Recent theories have limited the signification of perception. In its older usage, it designated any awareness, any "seeing" whether of objects, ideas, principles, conclusions or whatever. In recent literature it is usually restricted to "sense-perception." There can be no quarrel about the meaning of words except a lexicographical quarrel. The issue at stake concerns then not the appropriate use of a word; it concerns certain matters of fact which are implied or usually associated with the present restricted usage. These implications are two: First, there exists a mode of consciousness or awareness which is original, primitive, simple, and which refers immediately and intrinsically to things in space external to the organism at the time of perception. Secondly, this reference is originally, and *ex proprio motu*, cognitive. Now as against these implications, the theory which has been advanced asserts that awareness in the form of auditory and visual perception is, whenever it is cognitive, just as much a matter of inferential judgment, an instance of a way of taking and using meanings, as is any proposition found in the science of physics.

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[9] From *Experience and Nature*, pp. 332-339.

The current theory begins with a distinction between peripherally initiated and centrally initiated awareness. Peripheral initiation is the defining mark of such operations as are designated "perceptions." But awarenesses do not come to us labelled "I am caused by an event initiated on the surface of the body by other bodies"; and "I on the contrary originate in an intra-organic event only indirectly connected with surface-changes." The distinction is one made by analytic and classifying thought. This fact is enough to place in doubt the notion that some modes of consciousness are originally and intrinsically "sense-perception."

Moreover, there is no absolute separation between the skin and the interior of the body. No sooner is the distinction drawn than it has to be qualified. As a matter of fact there is no such *thing* as an *exclusively* peripherally initiated nervous event. Internal conditions, those of hunger, blood-circulation, endocrine functions, persistences of prior activities, pre-existent opened and blocked neuronic connections, together with a multitude of other intra-organic factors enter into the determination of a peripheral occurrence. And after the peripheral excitation has taken place, its subsequent career is not self-determined, but is affected by literally everything going on within the organism. It is pure fiction that a "sensation," or peripheral excitation, or stimulus, travels undisturbed in solitary state in its own coach-and-four to enter the brain or consciousness in its purity. A particular excitation is but one of an avalanche of contemporaneously occurring excitations, peripheral and from proprio-ceptors; each has to compete with others, to make terms with them; what happens is an integration of complex forces.

It requires therefore a highly technical apparatus of science to discriminate the exact place and nature of a peripheral stimulation, and to trace its normal course to just the junction point where it becomes effective for redirection of activity and thus capable of perception. "Peripheral origin" marks an interpretation of events, a discrimination scientifically valid and important, but no more an original datum than is the spectrum of Betelgeuse. The same thesis holds good, of course, of the "consciousness" corresponding to the centrally initiated processes. To suppose that there are inherently marked off different forms of awareness corresponding to the distinction arrived at by technical analysis is as flagrant a case of hypostatizing as can be found. The theory that certain kinds or forms of consciousness intrinsically have an intellectual or cognitive reference to things present in space is merely the traditional theory that knowledge is an immediate grasp of Being, clothed in the terminology of recent physiology. While it is offered as if it were established by physiological and psychological research, in reality it presents an intellectual hold-over, a notion picked up from early teachings which have not been subjected to any critical examination; physiology and psychology merely afford a vocabulary with which to deck out an unconscionable survival.

Reference to peripheral stimulation of eye or ear or skin or nose is, whether of the simpler and popular kind or of the more complex neurological kind, part of the technique of checking up the particular sort of extrinsic reference which should be given to an idea; discovery whether it is to be referred to a past, contemporary or future thing, or treated as due to wish and emotion. Even so, ascertainment of mode of stimulation and origin is always secondary and derived. We do not believe a thing to be "there" because we are directly cognizant of an external origin for our perception; we infer some external stimulation of our sensory apparatus because we are successfully engaged in motor response. Only when the latter fails, do we turn back and examine the matter of sensory stimulation. To say that I am now conscious of a typewriter as the source of sensory stimuli is to make a back-handed and sophisticated statement of the fact that I am engaged in active employment of the typewriter to produce certain consequences, so that what I am aware of is these consequences and the relation to them of parts of the typewriter as means of producing them. As matter of fact, we *never* perceive the peripheral stimuli to which we are at that given time responding.

The notion that these stimuli are the appropriate and normal objects of simple original perceptions represents, as we have just said, an uncritical acceptance by psychologists of an old logical and metaphysical dogma, one having neither origin nor justification within scientific psychology. We are aware only of stimuli to other responses than those which we are now making; we become aware of them when we analyze some performed total act to discover the mechanism of its occurrence. To become aware of an optical or auditory stimulation involved in an act signifies that we now apprehend that an organic change is part of the means used in the act, so that soundness of its structure and working is requisite to efficient performance of the act. I do not usually, for example, hear the sounds made by the striking of the keys; hence I therefore bang at them or strike them unevenly. If I were better trained or more intelligent in the performance of this action, I should hear the sounds, for they would have ceased to be just stimuli and become means of direction of my behavior in securing consequences. Not having learned by the "touch-method," my awareness of contact-qualities as I hit the keys is intermittent and defective. Physiological stimulation of fingers is involved as a condition of my motor response; yet there is no consciousness of contact "sensations" or sensa. But if I used my sensory touch appreciation as means to the proper execution of the act of writing, I should be aware of these qualities. The wider and freer the employment of means, the larger the field of sensory perceptions.

It is usual in current psychology to assert or assume that qualities observed are those of the stimulus. This assumption puts the cart before the horse; qualities which are observed are those attendant upon response to stimuli. We are *observantly* aware (in distinction from inferentially aware) only of what *has* been done; we can perceive what is already there, what *has* happened. By description, a stimulus is not an object of perception, for stimulus is correlative to response, and is undetermined except as response occurs. I am not questioning as a fact of *knowledge* that certain things *are* the stimuli of visual and auditory perception. I am pointing out that we are aware of the stimuli only in terms of our response to them and of the consequences of this response.

Argument as to the impossibility of stimuli being the object of perception is of course dialectical; like all dialectic arguments it is not convincing if confronted with facts to the contrary. But facts agree. The whiteness of the paper upon which words are being written and the blackness of the letters have been constantly operative stimuli in what I have been doing. It is equally certain that they have not been constantly perceived objects. If I have perceived them from time to time, it is in virtue of prior responses of which they were consequences, and because of the need of employing these attained consequences as means in further action. In the laboratory, as in the painter's studio, colors are specific objects of perception. But as perceived, they are "stimuli" only proleptically and by a shift in the universe of discourse. The shift is evident in the fact that stimuli are stated as vibrations or electro-magnetic disturbance or in similar fashion; now vibrations are not observed while color, the consequence, the effected coordination, is in direct consciousness. The color now and here perceived, in consequence of an organic adjustment to other stimuli than color, is in subsequent situations a stimulus to other modes of behavior, unconscious in so far as just a stimulus; conscious as far as a deliberately utilized means.

While the word "perception" may be limited to designate awareness of objects contemporaneously affecting the bodily organs, there is no ground whatever for the assumption which has usually attended this narrowing of the older meaning of the word: namely, that sense-perception has *intrinsic* properties or qualities marking it off from other forms of consciousness. Much less is there justification for the assumption that such perceptions are the original form of elementary awareness from which other forms of cognitive consciousness develop. On the contrary sensory-perceptual meanings are specifically discriminated objects of awareness; the discrimination takes place in the course of inquiry into causative conditions and consequences; the ultimate need for the inquiry is found in the necessity of discovering what is to be done, or of developing a response suitably adapted to the requirements of a situation.

When inquiry reveals that an object external to the organism is now operative and affecting the organism, the pertinency of overt action is established and the kind of overt adjustment that should be made is in evidence. Perceptual meanings (sensory-perceptual) contrast with other meanings in that either (a) the latter cannot be overtly acted upon *now* or immediately, but only at a deferred time, when specified conditions now absent have been brought into being—conceptual meanings—; or (b) that the latter are such that action upon them at *any* time must be of a dramatic or literary or playful sort—non-cognitive meanings. The necessities of behavior enforce very early in life the difference between acts demanded at once, and those pertinent only at a later time; yet making and refining the distinction is a matter of constant search and discovery, not, as the traditional theory presumes, an original and ready-made affair.

CHAPTER SIX

THE INSTRUMENTAL THEORY OF KNOWLEDGE

THE NON-COGNITIVE CONTEXT OF KNOWLEDGE OR COGNITION [1]

I HAVE pointed out that if perception be treated as a case of knowledge, knowledge of every form and kind must be treated as a case of a presentation to a knower. The alleged discipline of epistemology is then inevitable. In common usage, the term "knowledge" tends to be employed eulogistically; its meaning approaches the connotation of the term "science." More loosely, it is used, of course, to designate all beliefs and propositions that are held with assurance, especially with the implication that the assurance is reasonable, or grounded. In its practical sense, it is used as the equivalent of "knowing *how*," of skill or ability involving such acquaintance with things and persons as enables one to anticipate how they behave under certain conditions and to take steps accordingly. Such usages of the term are all differential; they all involve definite contrasts—with ungrounded conviction, or with doubt and mere guesswork, or with the inexpertness that accompanies lack of familiarity.

In its epistemological use, the term "knowledge" has a blanket value which is absolutely unknown in common life. It covers any and every "presentation" of any and every thing to a knower, to an "awarer," if I may coin a word for the sake of avoiding some of the pitfalls of the term "consciousness." And, I repeat, this indiscriminate use of the term "knowledge," so foreign to science and daily life, is absolutely unavoidable if perception be regarded as, in itself, a mode of knowledge. And then—and only then—the problem of "the possibility, nature, and extent of knowledge *in general*" is also inevitable. I hope I shall not be regarded as offensively pragmatic if I suggest that this undesirable consequence is a good reason for not accepting the premise from which it follows, unless that premise be absolutely forced upon us.

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[1] From *Essays in Experimental Logic*, pp. 264-266; 269-270; 280.

At all events, upon the supposition of the ubiquity of the knowledge relation in respect to a self, presentative realism is compelled to accept the genuineness of the epistemological problem, and thus to convert itself into an epistemological realism, getting one more step away from both naïve and naturalistic realism. The problem is especially acute for a presentative realism because idealism has made precisely this ubiquity of relationship its axiom, its short-cut.

If the knowledge relation of things to a self is the exhaustive and inclusive relation, there is no intelligible point at issue between idealism and realism; the differences between them are either verbal or else due to a failure on the part of one or the other to stick to their *common* premise.

Under what conditions is the relation of knower to known an intelligible question? I wish to show that it is *not* intelligible, if the knowledge relation be ubiquitous and homogeneous.

Imagine a situation like the following: The sole relation an organism bears to things is that of eater; the sole relation the environment bears to the organism is that of food, that is, things-to-eat. This relation, then, is exhaustive. It defines, or identifies, each term in relation to the other. But this means that there are not, as respects organism and environment, two terms at all. Eater-of-food and food-being-eaten are two names for one and the same situation. Could there be imagined a greater absurdity than to set to work to discuss the relation *of* eater *to* food, *of* organism *to* the environment, or to argue as to whether one modifies the other or not?

Given the premise, the statements in such a discussion could have only a verbal difference from one another.

Suppose, however, the discussion has somehow got under way. Sides have been taken; the philosophical world is divided into two great camps, "foodists" and "eaterists." The eaterists (idealists) contend that no object exists except in relation to eating; hence that everything is constituted a thing by its relation to eating. Special sciences exist indeed which discuss the nature of various sorts of things in relation to *one another*, and hence in legitimate abstraction from the fact that they are all foods. But the discussion of their nature *an sich* depends upon "eatology," which deals primarily with the problem of the possibility, nature, and extent (or limits) of eating food in general, and thereby determines what food in general, *überhaupt*, is and means.

Nay, replies the foodist (realist). Since the eating relation is uniform, it is negligible. All propositions which have any intelligible meaning are about objects just as they are, and in the relations they bear to one another. Foods pass in and out of the relation to eater with no change in their own traits. Moreover, the position of the eaterists is self-contradictory. How can a thing be eaten unless it *is*, in and of itself, a food? To suppose that a food is constituted by eating is to presuppose that eating eats eating, and so on in infinite regress. In short, to be an eater is to be an eater of food; take away the independent existence of foods, and you deny the existence and the possibility of an eater.

I submit that there is no terminus to such a discussion. For either both sides are saying the same thing in different words, or else both of them depart from their common premise, and unwittingly smuggle in some relations between the organism and environment other than that of food-eater. If to be an eater means that an organism which is more and other than an eater is doing something *distinctive* in eating—because contrasting with its other functions—then, and then only, is there an issue. In this latter case, the thing which is food may, of course, be *proved* to be something besides food, because of some different relation to the organism than that of eating. But if both stick consistently to their common premise, we get the following trivial situation. The idealist says: "Every philosophy purports to be knowledge, knowledge of objects; all knowledge implies relation to mind; therefore every object with which philosophy deals is object-in-relation-to-mind." The realist says: "To be a mind is to be a knower; to be a knower is to be a knower-of-objects. Without the objects to be known, mind, the knower, is and means nothing."

The difficulties attending the discussion of epistemology are in no way attendant upon the special subject-matter of "epistemology." They are found wherever any reciprocal relation is taken to define, exclusively and exhaustively, all the connections between any pair of things. If there are two things that stand solely as buyer and seller to each other, or as husband and wife, then that relation is "unique," and undefinable; to discuss the relation *of* the relation *to* the terms of which it is the relation, is an obvious absurdity; to assert that the relation does *not* modify the "seller," the "wife," or the "object known," is to discuss the relation *of* the relation just as much as to assert the opposite. The only reason, I think, why any one has ever supposed the case of knower-known to differ from any case of an alleged exhaustive and exclusive correlation is that while the knower is only one—just knower—the objects known are obviously many, and sustain many relations to one another which vary independently of their relation to the knower. This is the undoubted fact at the bottom of epistemological realism. But the idealist is entitled to reply that the objects in their variable relations to one another nevertheless fall within a relation to a knower, *as long as* that relation is regarded by both as exhaustive or ubiquitous.

Nevertheless, I do not conceive that the realistic assertion and the idealistic assertion in this dilemma stand on the same level, or have the same value. The fact that objects vary in relation to one another independently of their relation to the "knower" *is* a fact, and a fact recognized by all schools. The idealistic assertion rests simply upon the presupposition of the ubiquity of the knowledge relation, and consequently has only an *ad hominem* force, that is a force as against epistemological realists—against those who admit that the sole and exhaustive relation of the "self" or "ego" to objects is that of knower of them.

The relation of buyer and seller is a discussable relation; for buyer does not exhaust one party and seller does not exhaust the other. Each is a man or a woman, a consumer or a producer or a middleman, a green-grocer or a dry-goods merchant, a taxpayer or a voter, and so on indefinitely. Nor is it true that such additional relations are borne merely to *other* things; the buyer-sellers are more than and other than buyer-seller to *each other*. They may be fellow-clubmen, belong to opposite political parties, dislike each other's looks, and be second cousins. Hence the buyer-seller relation stands in intelligent connection and contrast with other relations, so that it can be discriminated, defined, analyzed. Moreover, there are specific differences *in* the buying-selling relation. Because it is not ubiquitous, it is not homogeneous. If wealthy and a householder, the one who buys is a different buyer—i.e., buys differently—than if poor and a boarder. Consequently, the seller sells differently, has more or less goods left to sell, more or less income to expend on other things, and so on indefinitely. Moreover, in order to be a buyer the man has to *have been* other things; i.e., he is not a buyer *per se*, but *becomes* a buyer because he is an eater, wears clothes, is married, etc.

It is also quite clear that the organism is something else than an eater, or something in relation to food alone. I will not again call the roll of perfectly familiar facts; I will lessen my appeal to the reader's patience by confining my reiteration to one point. Even in relation to the things that are food, the organism is something more than their eater. He is their acquirer, their pursuer, their cultivator, their beholder, taster, etc.; he *becomes* their eater *only* because he is so many other things, and his becoming an eater is a natural episode in the natural unfolding of these other things.

Precisely the same sort of assertions may be made about the knower-known relation. If the one who is knower is something else and more than the knower of objects, and if objects are, *in relation to the one who knows them*, something else and other than things in a knowledge relation, there is somewhat to define and discuss; otherwise we are raising, as we have already seen, the quite foolish question as to what is the relation of a relation to itself, or the equally foolish question of whether being a thing modifies the thing that it is. And, moreover, epistemological realism and idealism both say the same thing: realism that a thing does not modify itself, idealism that, since the thing is what it is, it stands in the relation that it does stand in.

I had occasion earlier to remark that if one identifies "knowledge" with situations involving the function of inference, the *problem* of knowledge means the art of guiding this function most effectively. That statement holds when we take knowledge as a relation of the things *in* the knowledge situation. If we are once convinced of the artificiality of the notion that the knowledge relation is ubiquitous, there will be an existential problem as to the self and knowledge; but it will be a radically different problem from that discussed in epistemology. The relation of knowing to existence will be recognized to form the subject-matter of no problem, because as a problem it involves an ungrounded and even absurd preconception. But the problem of the relation of an existence in the way of knowing to other existences—or events—with which it forms a continuous process will then be seen to be a natural problem to be attacked by natural methods.

ALL KNOWLEDGE OR COGNITION IS INFERENTIAL[2]

Ghosts, centaurs, tribal gods, Helen of Troy and Ophelia of Denmark are as much the meanings of events as are flesh and blood, horses, Florence Nightingale and Madam Curie. This statement does not mark a discovery; it enunciates a tautology. It seems questionable only when its significance is altered; when it is taken to denote that, because they are all meanings of events, they all are the same kind of meaning with respect to validity of reference. Because perception of a ghost does not signify a subtle, intangible form, filling space as it moves about, it does not follow that it may not signify some other existential happening like disordered nerves; a religious animistic tradition; or, as in the play of Hamlet, that it may not signify an enhancement of the meaning of a moving state of affairs. The existential events that form a drama have their own characteristic meanings, which are not the less meanings of those events because their import is dramatic, not authentically cognitive. So when men gather in secret to plot a conspiracy, their plans are not the less meanings of certain events because they have not been already carried out; and they remain meanings of events even if the conspiracy comes to naught.

The proposition that the perception of a horse is objectively valid and that of a centaur fanciful and mythical does not denote that one is a meaning of natural events and the other is not. It denotes that they are meanings referable to *different* natural events, and that confused and harmful consequences result from attributing them to the same events. The idea that the consciousness of a horse as now present and of a centaur differ *as* perceptions, or states of awareness, is an illustration of the harm wrought by introspective psychology, which, here as elsewhere, treats *relationships of objects* as if they were inherent qualities of an immediate subject-matter, ignoring the fact that causal relationships to unperceived things are involved. The matter of the cognitive validity of the horse-perception and the cognitive invalidity of the centaur-perception is not an affair of intrinsic difference in the two perceptions, which inspection of the two states of awareness as such can ever bring to light; it is a causal matter, brought to light as we investigate the causal antecedents and consequents of the events having the meanings.

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[2] From *Experience and Nature*. pp. 320-324; 339-340; *Essays in Experimental Logic*, pp. 276-278.

In other words, the difference between assertion of a perception, belief in it, and merely having it is an extrinsic difference; the belief, assertion, cognitive reference is something additive, never merely immediate. Genuinely to believe the centaur-meaning is to assert that events characterized by it interact in certain ways with other now unperceived events. Since belief that centaur has the same kind of objective meaning as has horse denotes expectation of like efficacies and consequences, the difference of validity between them is extrinsic. It is capable of being revealed only by the results of acting upon them. The awareness of centaur meaning is fanciful not simply because part of its conditions lie within the organism; part of the conditions of *any* perception, valid as well as invalid, scientific as well as esthetic, lie within the organism. Nor is it fanciful, simply because it is supposed not to have adequate existential antecedents. Natural conditions, physiological, physical and social, may be specified in one case as in the other. But since the conditions in the two cases are different, consequences are bound to be different. Knowing, believing, involves something additive and extrinsic to having a meaning.

There are many facts which, prima facie, support the claim that knowing is a connection of things which depends upon other and more primary connections between a self and things; a connection which grows out of these more fundamental connections and which operates in their interests at specifiable crises. I will not repeat what is so generally admitted and so little taken into account, that knowing is, biologically, a differentiation of organic behavior, but will cite some facts that are even more obvious and even more neglected.

If we take a case of perception, we find upon analysis that, so far as a self or organism is concerned in it at all, the self is, so to say, inside of it rather than outside of it. It would be much more correct to say that a self is contained in a perception than that a perception is presented to a self. That is to say, the organism is involved in the occurrence of the perception in the same sort of way that hydrogen is involved in the happening—producing—of water. We might about as well talk of the production of a specimen of water as a presentation of water to hydrogen as talk in the way we are only too accustomed to talk about perceptions and the organism. When we consider a perception as a case of "apperception," the same thing holds good. Habits enter into the *constitution* of the situation; they are in and of it, not, so far as it is concerned, something outside of it. Here, if you please, is a unique relation of self and things, but it is unique not in being wholly incomparable to all natural relations among events, but in the sense of being distinctive or just the relation that it is.

Taking the many cases where the self may be said, in an intelligible sense, to lie *outside* a thing and hence to have dealings with it, we find that they are extensively and primarily cases where the self is agent-patient, doer, sufferer, and enjoyer. This means, of course, that things, the things that later come to be known, are primarily not objects of awareness, but causes of weal and woe, things to get and things to avoid, means and obstacles, tools and results. To a naïve spectator, the ordinary assumption that a thing is "in" experience only when it is an object of awareness (or even only when a perception) is nothing less than extraordinary. The self experiences whatever it undergoes, and there is no fact about life more assured or more tragic than that what we are aware of is determined by things that we are undergoing but of which we are not conscious and which we cannot be conscious of under the particular conditions.

So far as the question of the relation of the self to known objects is concerned, knowing is but one special case of the agent-patient, of the behaver-enjoyer-sufferer situation. It is, however, the case constantly increasing in relative importance. The connections of the self with things by way of weal or woe are progressively found to depend upon the connections established in knowing things; on the other hand, the progress, the advance, of science is found to depend more and more upon the courage and patience of the agent in making the widening and buttressing of knowledge a business.

It is impossible to overstate the significance, the reality, of the relation of self as knower to things when it is thought of as a *moral* relation, a deliberate and responsible undertaking of a self. Ultimately the modern insistence upon the self in reference to knowledge (in contrast with the classic Greek view) will be found to reside precisely here.

No knowledge is ever merely immediate. The proposition that the perception of a horse is valid and that a centaur is fanciful or hallucinatory, does not denote that there are two modes of awareness, differing intrinsically from each other. It denotes something with respect to causation, namely, that while both have their adequate antecedent conditions, the specific causal conditions are ascertained to be different in the two cases. Hence it denotes something with respect to consequences, namely, that action upon the respective meanings will bring to light (to apparency or awareness) such different kinds of consequences that we should use the two meanings in very different ways. Both acts and consequences lie outside the primary perceptions; both have to be diligently sought for and tested. Since conditions in the two cases *are* different, they operate differently. That is, they belong to different histories, and the matter of the history to which a given thing belongs is just the matter with which knowledge is concerned.

The conscious or perceived affair is itself a consequence of antecedent conditions. But were this conscious or apparent (evident, focal) consequence the *only* consequence of the conditions, if there were not other as yet unapparent consequences, we should have absolutely no way to tell in what sequence of events a perception belongs, and hence absolutely no way of determining its validity or cognitive standing. It is because conditions which generate the perception of a horse have other and different consequences than the perception (and similarly of those which generate the idea of the centaur), that it is possible to make a distinction between the value in knowledge of the two ideas. By discovering the different sequential affairs to which they respectively belong we can differentiate their import for knowledge. Failure to recognize this fact is the ultimate condemnation, it may be remarked in passing, of idealistic theories of knowledge, which identify knowledge with immediate consciousness. If an all-inclusive consciousness were to exist, it would be a piece of esthetic scenery, interesting or tedious as the case might be, but having no conceivable cognitive standing.

That a perception is cognitive means, accordingly, that it is used; it is treated as a sign of conditions that implicate other as yet unperceived consequences in addition to the perception itself. That a perception is *truly* cognitive means that its active use or treatment is followed by consequences which fit appropriately into the other consequences which follow independently of its being perceived. To discover that a perception or an idea is cognitively invalid is to find that the consequences which follow from acting upon it entangle and confuse the other consequences which follow from the causes of the perception, instead of integrating or coördinating harmoniously with them. The special technique of scientific inquiry may be defined as consisting of procedures which make it possible to perceive the eventual agreement or disagreement of the two sets of consequences. For experience proves that it is possible for great disparity between them to exist, and yet the conflict not be perceived or else be explained away as of no importance.

Apart from considerations of use and history there are no original and inherent differences between valid meanings and meanings occurring in revery, desiring, fearing, remembering, all being *intrinsically* the same in relation to events. This fact contains in gist the condemnation of introspection. It is not asserted that observations *called* introspection have never given results. It *is* claimed that in such cases, the procedure does not conform to the theoretical definition of immediate inspection but involves the results of inquiries into relationships with things not directly present. It makes no difference in principle whether the introspective doctrine takes a dialectical form, as in the Cartesian-Spinozistic logical realism in which intrinsic self-evidency, clearness, adequacy, or truth, are imputed to some conceptual meanings or ideas; or whether it takes the more usual form of assigning to things appearing in the field of consciousness intrinsic properties which may be read off by direct inspection and thereby used to denominate them as sensory, perceptual, conceptual, imaginative, fantastic, memory, emotional, volitional, etc. It is asserted that in every case, the basis of classification is extrinsic, an affair dependent upon a study, often hard to make, of generating conditions and of subsequent careers. The denominations are interpretations, and like all interpretations are adequate only when controlled by wide and accurate information as to bodies of fact that are remote and extraneous.

It is not too much to say that the introspective doctrine —much wider in logical scope than so-called introspective psychology—is the last desperate stand and fortress of the classic doctrine that knowledge is immediate grasp, intuition, envisagement, possession. It is this fact which constitutes the importance of the views that have been criticized. Until they have been criticized, until the assumption of immediate intrinsic differences in the meaning-objects of sensory perceptions, reveries, dreams, desires, emotions, has been expelled, the actual relation of ideas to existences must remain an obscure and confused matter.

THE SPECIFIC OCCASION OF THINKING [3]

No one doubts that thought, at least reflective as distinct from what is sometimes called constitutive thought, is derivative and secondary. It comes after something and out of something, and for the sake of something. No one doubts that the thinking of everyday practical life and of science is of this reflective type. We think about; we reflect over. If we ask what it is which is primary and radical to thought; if we ask what is the final objective for the sake of which thought intervenes; if we ask in what sense we are to understand thought as a derived procedure, we are plunging ourselves into the very heart of the logical problem: the relation of thought to empirical antecedents and to its consequent, truth, and the relation of truth to reality.

From the naïve point of view no difficulty attaches to these questions. The antecedents of thought are our universe of life and love; of appreciation and struggle. We think about anything and everything: snow on the ground; the alternating clanks and thuds that rise from below; the relation of the Monroe Doctrine to the embroglio in Venezuela; the relation of art to industry; the poetic quality of a painting by Botticelli.

Through the madness of this miscellaneous citation there appears so much of method: anything—event, act, value, ideal, person, or place—may be an object of thought. Reflection busies itself alike with physical nature, the record of social achievement, and the endeavors of social aspiration. It is with reference to *such* affairs that thought is derivative; it is with reference to them that it intervenes or mediates. Taking some part of the universe of action, of affection, of social construction, under its special charge, and having busied itself therewith sufficiently to meet the special difficulty presented, thought releases that topic and enters into further more direct experience.

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[3] From *Essays in Experimental Logic*, pp. 75-77

Sticking for a moment to this naïve standpoint, we recognize a certain rhythm of direct practice and derived theory; of primary construction and of secondary criticism; of living appreciation and of abstract description; of active endeavor and of pale reflection. We find that every more direct primary attitude passes upon occasion into its secondary deliberative and discursive counterpart. We find that when the latter has done its work it passes away and passes on. From the naïve standpoint such rhythm is taken as a matter of course. There is no attempt either to state the nature of the occasion which demands the thinking attitude, or to formulate a theory of the standard by which is judged its success. No general theory is propounded as to the exact relationship between thinking and what antecedes and succeeds it. Much less do we ask how empirical circumstances can generate rationality of thought; nor how it is possible for reflection to lay claim to power of determining truth and thereby of constructing further reality.

If we were to ask the thinking of naïve life to present, with a minimum of theoretical elaboration, its conception of its own practice, we should get an answer running not unlike this: Thinking is a kind of activity which we perform at specific need, just as at other need we engage in other sorts of activity: as converse with a friend; draw a plan for a house; take a walk; eat a dinner; purchase a suit of clothes, etc. In general, its material is anything in the wide universe which seems to be relevant to this need—anything which may serve as a resource in defining the difficulty or in suggesting modes of dealing effectively with it. The measure of its success, the standard of its validity, is precisely the degree in which the thinking actually disposes of the difficulty and allows us to proceed with more direct modes of experiencing, that are forthwith possessed of more assured and deepened value.

THE NATURE OF A TOOL OR INSTRUMENT [4]

Tools, means, agencies are the characteristic thing in industry; such a statement is tautology. By its nature technology is concerned with things and acts in their instrumentalities, not in their immediacies. Objects and events figure in work not as fulfillments, realizations, but in behalf of other things of which they are means and predictive signs. A tool is a particular thing, but it is more than a particular thing, since it is a thing in which a connection, a sequential bond of nature is embodied. It possesses an objective relation as its own defining property. Its perception as well as its actual use takes the mind to other things. The spear suggests the feast not directly but through the medium of other external things, such as the game and the hunt, to which the sight of the weapon transports imagination. Man's bias towards himself easily leads him to think of a tool solely in relation to himself, to his hand and eyes, but its primary relationship is toward other external things, as the hammer to the nail, and the plow to the soil. Only through this objective bond does it sustain relation to man himself and his activities. A tool denotes a perception and acknowledgment of sequential bonds in nature.

THE NATURAL INTERDEPENDENCE OF INSTRUMENT AND MATERIAL [5]

There is no miracle in the fact that tool and material are adapted to each other in the process of reaching a valid conclusion. Were they external in origin to each other and to the result, the whole affair would, indeed, present an insoluble problem—so insoluble that, if this were the true condition of affairs, we never should even know that there was a problem. But, in truth, both material and tool have been secured and determined with reference to economy and efficiency in effecting the end desired—the maintenance of a harmonious experience. The builder has discovered that his building means building tools, and also building material. Each has been slowly evolved with reference to its fit employ in the entire function; and this evolution has been checked at every point by reference to its own correspondent. The carpenter has not thought at large on his building and then constructed tools at large, but has thought of his building in terms of the material which enters into it, and through that medium has come to the consideration of the tools which are helpful.

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[4] From *Experience and Nature,* pp. 122-123.

[5] From *Essays in Experimental Logic,* pp. 94-95; 176-178.

Thinking is adaptation *to* an end *through* the adjustment of particular objective contents. The thinker, like the carpenter, is at once stimulated and checked in every stage of his procedure by the particular situation which confronts him. A person is at the stage of wanting a new house: well, then, his materials are available resources, the price of labor, the cost of building, the state and needs of his family, profession, etc.; his tools are paper and pencil and compass, or possibly the bank as a credit instrumentality, etc. Again, the work is beginning. The foundations are laid. This in turn determines its own specific materials and tools. Again, the building is almost ready for occupancy. The concrete process is that of taking away the scaffolding, clearing up the grounds, furnishing and decorating rooms, etc. This specific operation again determines its own fit or relevant materials and tools. It defines the time and mode and manner of beginning and ceasing to use them. Logical theory will get along as well as does the practice of knowing when it sticks close by and observes the directions and checks inherent in each successive phase of the evolution of the cycle of experience. The problem in general of validity of the thinking process as distinct from the validity of this or that process arises only when thinking is isolated from its historic position and its material context.

In the course of changing experience we keep our balance in moving from situations of an affectional quality to those which are practical or appreciative or reflective, because we bear constantly in mind the context in which any particular distinction presents itself. As we submit each characteristic function and situation of experience to our gaze, we find it has a dual aspect. Wherever there is striving there are obstacles; wherever there is affection there are persons who are attached; wherever there is doing there is accomplishment; wherever there is appreciation there is value; wherever there is thinking there is material-in-question. We keep our footing as we move from one attitude to another, from one characteristic quality to another, because of the position occupied in the whole movement by the particular function in which we are engaged.

The distinction *between* each attitude and function and its predecessor and successor is serial, dynamic, operative. The distinctions *within* any given operation or function are structural, contemporaneous, and distributive. Thinking follows striving, and doing follows thinking. Each in the fulfilment of its own function inevitably calls out its successor. But coincident, simultaneous, and correspondent *within* doing is the distinction of doer and of deed; *within* the function of thought, of thinking and material thought upon; within the function of striving, of obstacle and aim, of means and end. We keep our paths straight because we do not confuse the sequential and functional relationship of types of experience with the contemporaneous and structural distinctions of elements within a given function. In the seeming maze of endless confusion and unlimited shiftings, we find our way by the means of the stimulations and checks occurring within the process in which we are actually engaged.

Operating within empirical situations we do not contrast or confuse a condition which is an element in the formation of one operation with the status which is one of the distributive terms of another function. When we ignore these specific empirical clues and limitations, we have at once an insoluble, because meaningless, problem upon our hands.

THE INSTRUMENTAL CHARACTER OF THINKING [6]

All knowledge, as issuing from reflection, is experimental in the literal physical sense of experimental. Thinking, or knowledge-getting, is far from being the armchair thing it is often supposed to be. The reason it is not an armchair thing is that it is not an event going on exclusively within the cortex or the cortex and vocal organs. It involves the explorations by which relevant data are procured and the physical analyses by which they are refined and made precise; it comprises the readings by which information is got hold of, the words which are experimented with, and the calculations by which the significance of entertained conceptions or hypotheses is elaborated. Hands and feet, apparatus and appliances of all kinds are as much a part of it as changes in the brain. Since these physical operations (including the cerebral events) and equipments are a part of thinking, thinking is mental, not because of a peculiar stuff which enters into it or of peculiar non-natural activities which constitute it, but because of what physical acts and appliances *do:* the distinctive purpose for which they are employed and the distinctive results which they accomplish.

That reflection terminates, through a definitive overt act,[7] in another non-reflectional situation, within which incompatible responses may again in time be aroused, and so another problem in reflection be set, goes without saying. Certain things about this situation, however, do not at the present time speak for themselves and need to be set forth. Let me in the first place call attention to an ambiguity in the term "knowledge." The statement that all knowledge involves reflection—or, more concretely, that it denotes an inference from evidence—gives offense to many; it seems a departure from fact as well as a wilful limitation of the word "knowledge."

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[6] From *Essays in Experimental Logic,* pp. 13-18.

[7] For emphasis I am here exaggerating by condensing into a single decisive act an operation which is continuously going on.

(1) It may well be admitted that there is a real sense in which knowledge (as distinct from thinking or inquiring with a guess attached) does not come into existence till thinking has terminated in the experimental act which fulfils the specifications set forth in thinking. But what is also true is that the object thus determined is an object of *knowledge* only because of the thinking which has preceded it and to which it sets a happy term. To run against a hard and painful stone is not of itself, I should say, an act of knowing; but if running into a hard and painful thing is an outcome predicted after inspection of data and elaboration of a hypothesis, then the hardness and the painful bruise which define the thing as a stone also constitute it emphatically an object of knowledge. In short, the object of knowledge in the strict sense is its objective; and this objective is not constituted till it is reached. Now this conclusion—as the word denotes—is thinking brought to a close, done with.

If the reader does not find this statement satisfactory, he may, pending further discussion, at least recognize that the doctrine set forth has no difficulty in connecting knowledge with inference, and at the same time admitting that knowledge in the emphatic sense does not exist till inference has ceased. Seen from this point of view, so-called immediate knowledge or simple apprehension or acquaintance knowledge represents a critical skill, a certainty of response which has accrued in consequence of reflection. A like sureness of footing apart from prior investigations and testings is found in instinct and habit. I do not deny that these may be better than knowing, but

I see no reason for complicating an already too confused situation by giving them the name "knowledge" with its usual intellectual implications. From this point of view, the subject-matter of knowledge is precisely that which we do *not* think of, or mentally refer to in any way, being that which is taken as matter of course, but it is nevertheless knowledge in virtue of the inquiry which has led up to it.

(2) Definiteness, depth, and variety of meaning attach to the objects of an experience just in the degree in which they have been previously thought about, even when present in an experience in which they do not evoke inferential procedures at all. Such terms as "meaning," "significance," "value," have a double sense. Sometimes they mean a function: the office of one thing representing another, or pointing to it as implied; the operation, in short, of serving as sign. In the word "symbol" this meaning is practically exhaustive. But the terms also sometimes mean an inherent quality, a quality intrinsically characterizing the thing experienced and making it worth while. The word "sense," as in the phrase "sense of a thing" (and non-sense) is devoted to this use as definitely as are the words "sign" and "symbol" to the other. In such a pair as "import" and "importance," the first tends to select the reference to another thing while the second names an intrinsic content.

In reflection, the extrinsic reference is always primary. The height of the mercury means rain; the color of the flame means sodium; the form of the curve means factors distributed accidentally. In the situation which follows upon reflection, meanings are intrinsic; they have no instrumental or subservient office, because they have no office at all. They are as much qualities of the objects in the situation as are red and black, hard and soft, square and round. And every reflective experience adds new shades of such intrinsic qualifications. In other words, while reflective knowing is instrumental to gaining control in a troubled situation (and thus has a practical or utilitarian force), it is also instrumental to the enrichment of the immediate significance of subsequent experiences. And it may well be that this by-product, this gift of the gods, is incomparably more valuable for living a life than is the primary and intended result of control, essential as is that control to having a life to live.

Words are treacherous in this field; there are no accepted criteria for assigning or measuring their meanings; but if one use the term "consciousness" to denote immediate values of objects, then it is certainly true that "consciousness is a lyric cry even in the midst of business." But it is equally true that if someone else understands by consciousness the function of effective reflection, then consciousness is a business—even in the midst of writing or singing lyrics. But the statement remains inadequate until we add that knowing as a business, inquiry and invention as enterprises, as practical acts, become themselves charged with the meaning of what they accomplish as *their* own immediate quality. There exists no disjunction between esthetic qualities which are final yet idle, and acts which are practical or instrumental. The latter have their own delights and sorrows.

IN THINKING BOTH FACTS AND IDEAS ARE WORKING HYPOTHESES[8]

The intellectual definition or delimitation assigned to the "given" is as tentative and experimental as that ascribed to the idea. In form both are categorical, and in content both are hypothetical. Facts really exist just as facts, and meanings exist as meanings. One is no more superfluous, more subjective, or less necessitated than the other. In and of themselves as existences both are equally realistic and compulsive. But on the basis of existence, there is no element in either which may be strictly described as intellectual or cognitional. There is only a practical situation in its brute and unrationalized form.

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[8] From *Essays in Experimental Logic*, pp. 242-244.

What is uncertain about the facts as given at any moment is whether the right exclusions and selections have been made. Since that is a question which can be decided finally only by the experimental issue, this ascription of character is itself tentative and experimental. If it works, the characterization and delineation are found to be proper ones; but every admission prior to inquiry, of unquestioned, categorical, rigid objectivity, compromises the probability that it will work. The character assigned to the datum must be taken as hypothetically as possible in order to preserve the elasticity needed for easy and prompt consideration. Any other procedure virtually insists that all facts and details anywhere happening to exist and happening to present themselves (all being equally real) must all be given equal status and equal weight, and that their outer ramifications and internal complexities must be indefinitely followed up. The worthlessness of this sheer accumulation of realities, its total irrelevancy, the lack of any way of judging the significance of the accumulations, are good proofs of the fallacy of any theory which ascribes objective logical content to facts wholly apart from the needs and possibilities of a situation.

The more stubbornly one maintains the *full* reality of either his facts or his ideas, just as they stand, the more accidental is the discovery of relevantly significant facts and of valid ideas—the more accidental, the less rational, is the issue of the knowledge situation. Due progress is reasonably probable in just the degree in which the meaning, categorical in its existing imperativeness, and the fact, equally categorical in its brute coerciveness, are assigned only a provisional and tentative nature with reference to control of the situation. That this surrender of a rigid and final character for the content of knowledge on the sides both of fact and of meaning, in favor of experimental and functioning estimations, is precisely the change which has marked the development of modern from mediaeval and Greek science, seems undoubted.

To learn the lesson one has only to contrast the rigidity of phenomena and conceptions in Greek thought (Platonic ideas, Aristotelian forms) with the modern experimental selection and determining of facts and experimental employment of hypotheses. The former have ceased to be ultimate realities of a nondescript sort and have become provisional data; the latter have ceased to be eternal meanings and have become working theories. The fruitful application of mathematics and the evolution of a technique of experimental inquiry have coincided with this change. That realities exist independently of their use as intellectual data, and that meanings exist apart from their utilization as hypotheses, are the permanent truths of Greek realism as against the exaggerated subjectivism of modern philosophy; but the conception that this existence is to be defined in the same way as are contents of knowledge, so that perfect being is object of perfect knowledge and imperfect being object of imperfect knowledge, is the fallacy which Greek thought projected into modern. Science has advanced in its methods in just the degree in which it has ceased to assume that prior realities and prior meanings retain fixedly and finally, when entering into reflective situations, the characters they had prior to this entrance; and in which it has realized that their very presence within the knowledge situation signifies that they have to be redefined and revalued from the standpoint of the new situation.

THE CONSTRUCTIVE CHARACTER OF THINKING[9]

Common sense regards intelligence as having a purpose and knowledge as amounting to something. I once heard a physicist, quite innocent of the pragmatic controversy, remark that the knowledge of a mechanic or farmer was what the Yankee calls gumption—acknowledgment of things in their belongings and uses, and that to his mind natural science was only gumption on a larger scale: the convenient cataloguing and arranging of a whole lot of things with reference to their most efficacious services. Popularly, good judgment is judgment as to the relative values of things: good sense is horse sense, ability to take hold of things right end up, to fit an instrument to an obstacle, to select resources apt for a task. To be reasonable is to recognize things in their offices as obstacles and as resources.

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[9] From "Does Reality Possess Practical Character?" in *Essays in Honor of William James*, pp. 60-63; *Essays in Experimental Logic*, pp. 18-19; 30-32.

Intelligence, in its ordinary use, is a practical term; ability to size up matters with respect to the needs and possibilities of the various situations in which one is called to do something; capacity to envisage things in terms of the adjustments and adaptations they make possible or hinder. Our objective test of the presence or absence of intelligence is influence upon behavior. No capacity to make adjustments means no intelligence; conduct evincing management of complex and novel conditions means a high degree of reason. Such conditions at least suggest that a reality-to-be-known, a reality which is the appropriate subject-matter of knowledge is reality-of-use-and-in-use, direct or indirect, and that a reality which is not in any sort of use, or bearing upon use, may go hang, *so far as knowledge is concerned.*

No one, I suppose, would deny that all knowledge issues in some action which changes things to some extent—be the action only a more deliberate maintenance of a course of conduct already instinctively entered upon. When I see a sign on the street corner I can turn or go on, knowing what I am about. The perceptions of the scientist need have no such overt or "utilitarian" uses, but surely after them he behaves differently, as an inquirer if in no other way; and the cumulative effect of such changes finally modifies the overt action of the ordinary man. That knowing, *after the event*, makes a difference of this sort, few, I suppose, would deny: if that were all pragmatism means, it would perhaps be accepted as a harmless truism.

But there is a further question of fact: just how is the "consequent" action related to the "precedent" knowledge? When *is* "after the event"? What degree of continuity exists? Is the difference between knowing and acting intelligently one of kind or simply one of dominant quality? How does a thing, if it is not already in change in the knowing, manage to issue at its term in action? Moreover, do not the changes actively effected constitute the whole *import* of the knowledge, and hence its final measure and test of validity? If it merely *happens* that knowing when it is done with passes into some action, by what miracle is the subsequent action so pat to the situation? Is it not rather true that the "knowledge" is instituted and framed in anticipation of the consequent issue, and, in the degree in which it is wise and prudent, is held open to revision during it?

Certainly the moralist (one might quote, for example, Goethe, Carlyle, and Mazzini) and the common man often agree that full knowledge, adequate assurance, of reality is found only in the issue which fulfils ideas; that we have to do a doctrine to *know* its truth; otherwise it is only dogma or doctrinaire program. Experimental science is a recognition that no idea is entitled to be termed knowledge till it has passed into such overt manipulation of physical conditions as constructs the object to which the idea refers. If one could get rid of his traditional logical theories and set to work afresh to frame a theory of knowledge on the basis of the procedure of the common man, the moralist, and the experimentalist, would it be the forced or the natural procedure to say that the realities which we *know*, which we are sure of, are precisely those realities that have taken shape in and through the procedures of knowing?

From the standpoint of temporal order, we find reflection, or thought, occupying an intermediate and reconstructive position. It comes between a temporally prior situation (an organized interaction of factors) of active and appreciative experience, wherein some of the factors have become discordant and incompatible, and a later situation, which has been constituted out of the first situation by means of acting on the findings of reflective inquiry. This final situation therefore has a richness of meaning, as well as a controlled character lacking to its original. By it is fixed the logical validity or intellectual force of the terms and relations distinguished by reflection. Owing to the continuity of experience (the overlapping and recurrence of like problems) these logical fixations become of the greatest assistance to subsequent inquiries; they are its working means. In such further uses, they get further tested, defined, and elaborated, until the vast and refined systems of the technical objects and formulae of the sciences come into existence.

Intelligence is not an otiose affair, nor yet a mere preliminary to a spectator-like apprehension of terms and propositions. Thinking is instrumental to a control of the environment, a control effected through acts which would not be undertaken without the prior resolution of a complex situation into assured elements and an accompanying projection of possibilities—without, that is to say, thinking. In so far as it is idealistic to hold that objects of knowledge *in their capacity of distinctive objects of knowledge* are determined by intelligence, this doctrine is idealistic. It believes that faith in the constructive, the creative, competency of intelligence was the redeeming element in historic idealisms. Lest, however, we be misled by general terms, the scope and limits of this "idealism" must be formulated.

(1) Its distinguishing trait is that it defines thought or intelligence by function, by work done, by consequences effected. It does not start with a power, an entity or substance or activity which is ready-made thought or reason and which as such constitutes the world. Thought, intelligence, is to it just a name for the events and acts which

make up the processes of analytic inspection and projected invention and testing which have been described. These events, these acts, are wholly natural; they are "realistic"; they comprise the sticks and stones, the bread and butter, the trees and horses, the eyes and ears, the lovers and haters, the sighs and delights of ordinary experience. Thinking is what some of the actual existences *do*. *They* are in no sense constituted by thinking; on the contrary, the problems of thought are set by *their* difficulties and its resources are furnished by *their* efficacies; its acts are *their* doings adapted to a distinctive end.

(2) The reorganization, the modification, effected by thinking is, by this hypothesis, a physical one. Thinking ends in experiment and experiment is an *actual* alteration of a physically antecedent situation in those details or respects which called for thought in order to do away with some evil. To suffer a disease and to try to do something for it is a primal experience; to look into the disease, to try and find out just what makes it a disease, to invent—or hypothecate—remedies is a reflective experience; to try the suggested remedy and see whether the disease is helped is the act which transforms the data and the intended remedy into *knowledge objects*. And this transformation into knowledge objects is also effected by changing physical things by physical means.

THE HISTORICAL OCCASION OF LOGICAL THEORY[10]

If we inquire why the naïve attitude does not elaborate the implications of its own practice into a systematic theory, the answer, on its own basis, is obvious. Thought arises in response to its own occasion. And this occasion is so exacting that there is time, as there is need, only to do the thinking which is needed in that occasion—not to reflect upon the thinking itself. Reflection follows so naturally upon its appropriate cue, its issue is so obvious, so practical, the entire relationship is so organic, that

[10] From *Essays in Experimental Logic,* pp. 78-79.

once grant the position that thought arises in reaction to specific demand, and there is not the particular type of thinking called logical theory because there is not the practical demand for reflection of that sort. Our attention is taken up with particular questions and specific answers. What we have to reckon with is not the problem of, How can I think *überhaupt?* but, How shall I think right *here and now?* Not what is the test of thought at large, but what validates and confirms *this* thought?

In conformity with this view, it follows that a generic account of our thinking behavior, the generic account termed logical theory, arises at historic periods in which the situation has lost the organic character above described. The general theory of reflection, as over against its concrete exercise, appears when occasions for reflection are so overwhelming and so mutually conflicting that specific adequate response in thought is blocked. Again, it shows itself when practical affairs are so multifarious, complicated, and remote from control that thinking is held off from successful passage into them. Under these conditions we get such questions as the following: What is the relation of rational thought to crude or unreflective experience? What is the relation of thought to reality? What is the barrier which prevents reason from complete penetration into the world of truth? What is it that makes us live alternately in a concrete world of experience in which thought as such finds not satisfaction, and in a world of ordered thought which is yet only abstract and ideal?

THE LOGIC OF HUMAN THINKING[11]

Logic is a matter of profound human importance precisely because it is empirically founded and experimentally applied. So considered, the problem of logical theory is none other than the problem of the possibility of the development and employment of intelligent method in inquiries concerned with deliberate reconstruction of experience.

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[11] From *Reconstruction in Philosophy*, pp. 138-140; *How We Think*, pp. 68-76; *The Journal of Philosophy*, Vol. XIX, pp. 29-30.

Assuming, accordingly, this idea of logic without argument, let us proceed to discuss some of its chief features. First, light is thrown by the *origin* of thinking upon a logic which shall be a method of intelligent guidance of experience. In line with what has already been said about experience being a matter primarily of behavior, a sensori-motor matter, is the fact that thinking takes its departure from specific conflicts in experience that occasion perplexity and trouble. Men do not, in their natural estate, think when they have no troubles to cope with, no difficulties to overcome. A life of ease, of success without effort, would be a thoughtless life, and so also would a life of ready omnipotence. Beings who think are beings whose life is so hemmed in and constricted that they cannot directly carry through a course of action to victorious consummation. Men also do not tend to think when their action, when they are amid difficulties, is dictated to them by authority. Soldiers have difficulties and restrictions in plenty, but *qua soldiers* (as Aristotle would say) they are not notorious for being thinkers. Thinking is done for them, higher up. The same is too true of most workingmen under present economic conditions. Difficulties occasion thinking only when thinking is the imperative or urgent way out, only when it is the indicated road to a solution. Wherever external authority reigns, thinking is suspected and obnoxious.

Thinking, however, is not the only way in which a personal solution of difficulties is sought. Dreams, reveries, emotional idealizations are roads which are taken to escape the strain of perplexity and conflict. According to modern psychology, many systematized delusions and mental disorders, probably hysteria itself, originate as devices for getting freedom from troublesome conflicting factors. Such considerations throw into relief some of the traits essential to thinking as a way of responding to difficulty. The short-cut "solutions" alluded to do not get rid of the conflict and problems; they only get rid of the feeling of it. They cover up consciousness of it. Because the conflict remains in fact and is evaded in thought, disorders arise.

We shall make an analysis of the process of thinking into its steps or elementary constituents, basing the analysis upon descriptions of a number of extremely simple, but genuine, cases of reflective experience.[12]

1. "The other day when I was down town on 16th Street a clock caught my eye. I saw that the hands pointed to 12:20. This suggested that I had an engagement at 124th Street, at one o'clock. I reasoned that as it had taken me an hour to come down on a surface car, I should probably be twenty minutes late if I returned the same way. I might save twenty minutes by a subway express. But was there a station near? If not, I might lose more than twenty minutes in looking for one. Then I thought of the elevated, and I saw there was such a line within two blocks. But where was the station? If it were several blocks above or below the street I was on, I should lose time instead of gaining it. My mind went back to the subway express as quicker than the elevated; furthermore, I remembered that it went nearer than the elevated to the part of 124th Street I wished to reach, so that time would be saved at the end of the journey. I concluded in favor of the subway, and reached my destination by one o'clock."

2. "Projecting nearly horizontally from the upper deck of the ferryboat on which I daily cross the river, is a long white pole bearing a gilded ball at its tip. It suggested a flagpole when I first saw it; its color, shape, and gilded ball agreed with this idea, and these reasons seemed to justify me in this belief. But soon difficulties presented themselves. The pole was nearly horizontal, an unusual position for a flagpole; in the next place, there was no pulley, ring, or cord by which to attach a flag; finally, there were elsewhere two vertical staffs from which

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[12] These are taken, almost verbatim, from the class papers of students.

flags were occasionally flown. It seemed probable that the pole was not there for flag-flying.

"I then tried to imagine all possible purposes of such a pole, and to consider for which of these it was best suited: (*a*) Possibly it was an ornament. But as all the ferryboats and even the tugboats carried like poles, this hypothesis was rejected. (*b*) Possibly it was the terminal of a wireless telegraph. But the same considerations made this improbable. Besides, the more natural place for such a terminal would be the highest part of the boat, on top of the pilot house. (*c*) Its purpose might be to point out the direction in which the boat is moving.

"In support of this conclusion, I discovered that the pole was lower than the pilot house, so that the steersman could easily see it. Moreover, the tip was enough higher than the base, so that, from the pilot's position, it must appear to project far out in front of the boat. Moreover, the pilot being near the front of the boat, he would need some such guide as to its direction. Tugboats would also need poles for such a purpose. This hypothesis was so much more probable than the others that I accepted it. I formed the conclusion that the pole was set up for the purpose of showing the pilot the direction in which the boat pointed, to enable him to steer correctly."

3. "In washing tumblers in hot soapsuds and placing them mouth downward on a plate, bubbles appeared on the outside of the mouth of the tumblers and then went inside. Why? The presence of bubbles suggests air, which I note must come from inside the tumbler. I see that the soapy water on the plate prevents escape of the air save as it may be caught in bubbles. But why should air leave the tumbler? There was no substance entering to force it out. It must have expanded. It expands by increase of heat or by decrease of pressure, or by both. Could the air have become heated after the tumbler was taken from the hot suds? Clearly not the air that was already entangled in the water. If heated air was the cause, cold air must have entered in transferring the

tumblers from the suds to the plate. I test to see if this supposition is true by taking several more tumblers out. Some I shake so as to make sure of entrapping cold air in them. Some I take out holding mouth downward in order to prevent cold air from entering. Bubbles appear on the outside of every one of the former and on none of the latter. I must be right in my inference. Air from the outside must have been expanded by the heat of the tumbler, which explains the appearance of the bubbles on the outside.

"But why do they then go inside? Cold contracts. The tumbler cooled and also the air inside it. Tension was removed, and hence bubbles appeared inside. To be sure of this, I test by placing a cup of ice on the tumbler while the bubbles are still forming outside. They soon reverse."

These three cases have been purposely selected so as to form a series from the more rudimentary to more complicated cases of reflection. The first illustrates the kind of thinking done by every one during the day's business, in which neither the data, nor the ways of dealing with them, take one outside the limits of every-day experience. The last furnishes a case in which neither problem nor mode of solution would have been likely to occur except to one with some prior scientific training. The second case forms a natural transition; its materials lie well within the bounds of every-day, unspecialized experience; but the problem, instead of being directly involved in the person's business, arises indirectly out of his activity, and accordingly appeals to a somewhat theoretic and impartial interest. We shall deal, in a later chapter, with the evolution of abstract thinking out of that which is relatively practical and direct; here we are concerned only with the common elements found in all the types.

Upon examination, each instance reveals, more or less clearly, five logically distinct steps: (*i*) a felt difficulty; (*ii*) its location and definition; (*iii*) suggestion of possible solution; (*iv*) development by reasoning of the bearings of the suggestion; (*v*) further observation and experiment leading to its acceptance or rejection; that is, the conclusion of belief or disbelief.

1. The first and second steps frequently fuse into one. The difficulty may be felt with sufficient definiteness as to set the mind at once speculating upon its probable solution, or an undefined uneasiness and shock may come first, leading only later to definite attempt to find out what is the matter. Whether the two steps are distinct or blended, there is the factor emphasized in our original account of reflection—*viz.* the perplexity or problem. In the first of the three cases cited, the difficulty resides in the conflict between conditions at hand and a desired and intended result, between an end and the means for reaching it. The purpose of keeping an engagement at a certain time, and the existing hour taken in connection with the location, are not congruous. The object of thinking is to introduce congruity between the two. The given conditions cannot themselves be altered; time will not go backward nor will the distance between 16th Street and 124th Street shorten itself. The problem is *the discovery of intervening terms which when inserted between the remoter end and the given means will harmonize them with each other.*

In the second case, the difficulty experienced is the incompatibility of a suggested and (temporarily) accepted belief that the pole is a flagpole, with certain other facts. Suppose we symbolize the qualities that suggest *flagpole* by the letters, *a*, *b*, *c;* those that oppose this suggestion by the letters *p*, *q*, *r*. There is, of course, nothing inconsistent in the qualities themselves; but in pulling the mind to different and incongruous conclusions they conflict—hence the problem. Here the object is the discovery of some object (*O*), of which *a*, *b*, *c*, and *p*, *q*, *r*, may all be appropriate traits—just as, in our first case, it is to discover a course of action which will combine existing conditions and a remoter result in a single whole. The method of solution is also the same: discovery of intermediate qualities (the position of the pilot house, of the pole, the need of an index to the boat's direction) symbolized by *d*, *g*, *l*, *o*, which bind together otherwise incompatible traits.

In the third case, an observer trained to the idea of natural laws or uniformities finds something odd or exceptional in the behavior of the bubbles. The problem is to reduce the apparent anomalies to instances of well-established laws. Here the method of solution is also to seek for intermediary terms which will connect, by regular linkage, the seemingly extraordinary movements of the bubbles with the conditions known to follow from processes supposed to be operative.

2. As already noted, the first two steps, the feeling of a discrepancy, or difficulty, and the acts of observation that serve to define the character of the difficulty may, in a given instance, telescope together. In cases of striking novelty or unusual perplexity, the difficulty, however, is likely to present itself at first as a shock, as emotional disturbance, as a more or less vague feeling of the unexpected, of something queer, strange, funny, or disconcerting. In such instances, there are necessary observations deliberately calculated to bring to light just what is the trouble, or to make clear the specific character of the problem. In large measure, the existence or non-existence of this step makes the difference between reflection proper, or safeguarded *critical* inference and uncontrolled thinking. Where sufficient pains to locate the difficulty are not taken, suggestions for its resolution must be more or less random.

Imagine a doctor called in to prescribe for a patient. The patient tells him some things that are wrong; his experienced eye, at a glance, takes in other signs of a certain disease. But if he permits the suggestion of this special disease to take possession prematurely of his mind, to become an accepted conclusion, his scientific thinking is by that much cut short. A large part of his technique, as a skilled practitioner, is to prevent the acceptance of the first suggestions that arise; even, indeed, to postpone the occurrence of any very definite suggestion till the trouble—the nature of the problem—has been thoroughly explored. In the case of a physician this proceeding is known as diagnosis, but a similar inspection is required in every novel and complicated situation to prevent rushing to a conclusion. The essence of critical thinking is suspended judgment; and the essence of this suspense is inquiry to determine the nature of the problem before proceeding to attempts at its solution. This, more than any other thing, transforms mere inference into tested inference, suggested conclusions into proof.

3. The third factor is suggestion. The situation in which the perplexity occurs calls up something not present to the senses: the present location, the thought of subway or elevated train; the stick before the eyes, the idea of a flagpole, an ornament, an apparatus for wireless telegraphy; the soap bubbles, the law of expansion of bodies through heat and of their contraction through cold. Suggestion is the very heart of inference; it involves going from what is present to something absent. Hence, it is more or less speculative, adventurous. Since inference goes beyond what is actually present, it involves a leap, a jump, the propriety of which cannot be absolutely warranted in advance, no matter what precautions be taken. Its control is indirect, on the one hand, involving the formation of habits of mind which are at once enterprising and cautious; and on the other hand, involving the selection and arrangement of the particular facts upon perception of which suggestion issues.

The suggested conclusion so far as it is not accepted but only tentatively entertained constitutes an idea. Synonyms for this are *supposition*, *conjecture*, *guess*, *hypothesis*, and (in elaborate cases) *theory*. Since suspended belief, or the postponement of a final conclusion pending further evidence, depends partly upon the presence of rival conjectures as to the best course to pursue or the probable explanation to favor, *cultivation of a variety of alternative suggestions* is an important factor in good thinking.

4. The process of developing the bearings—or, as they are more technically termed, the *implications*—of any idea with respect to any problem, is termed *reasoning*.[13] As an idea is inferred from given facts, so reasoning sets out from an idea. The *idea* of elevated road is developed into the idea of difficulty of locating station, length of time occupied on the journey, distance of station at the other end from place to be reached. In the second case, the implication of a flagpole is seen to be a vertical position; of a wireless apparatus, location on a high part of the ship and, moreover, absence from every casual tugboat; while the idea of index to direction in which the boat moves, when developed, is found to cover all the details of the case.

Reasoning has the same effect upon a suggested solution as more intimate and extensive observation has upon the original problem. Acceptance of the suggestion in its first form is prevented by looking into it more thoroughly. Conjectures that seem plausible at first sight are often found unfit or even absurd when their full consequences are traced out. Even when reasoning out the bearings of a supposition does not lead to rejection, it develops the idea into a form in which it is more apposite to the problem. Only when, for example, the conjecture that a pole was an index-pole had been thought out into its bearings could its particular applicability to the case in hand be judged. Suggestions at first seemingly remote and wild are frequently so transformed by being elaborated into what follows from them as to become apt and fruitful. The development of an idea through reasoning helps at least to supply the intervening or intermediate terms that link together into a consistent whole apparently discrepant extremes.

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[13] This term is sometimes extended to denote the entire reflective process—just as *inference* (which in the sense of *test* is best reserved for the third step) is sometimes used in the same broad sense. But *reasoning* (or *ratiocination*) seems to be peculiarly adapted to express what the older writers called the "notional" or "dialectic" process of developing the meaning of a given idea.

5. The concluding and conclusive step is some kind of *experimental corroboration*, or verification, of the conjectural idea. Reasoning shows that *if* the idea be adopted, certain consequences follow. So far the conclusion is hypothetical or conditional. If we look and find present all the conditions demanded by the theory, and if we find the characteristic traits called for by rival alternatives to be lacking, the tendency to believe, to accept, is almost irresistible. Sometimes direct observation furnishes corroboration, as in the case of the pole on the boat. In other cases, as in that of the bubbles, experiment is required; that is, *conditions are deliberately arranged in accord with the requirements of an idea or hypothesis to see if the results theoretically indicated by the idea actually occur.* If it is found that the experimental results agree with the theoretical, or rationally deduced, results, and if there is reason to believe that *only* the conditions in question would yield such results, the confirmation is so strong as to induce a conclusion—at least until contrary facts shall indicate the advisability of its revision.

In speaking of "steps" it is perhaps natural to suppose that something chronological is intended, and from that it is presumably a natural conclusion that the steps are taken in a temporal sequence in the order taken above. Nothing of this sort, however, is intended. The analysis is formal, and indicates the logical "movements" involved in an act of critical thought. It is a matter of indifference which comes first. Not even the occurrence of a problem need come absolutely first in time. For a scientific man may reason and experiment for the express purpose of discovering a problem upon which to exercise inquiry. The main distinction between uncritical and critical or scientific thinking is that the latter strives to combine as far as possible into one act the functions of inferring and testing. The attempt represents an ideal or limit which can not be attained except in mathematics.

Observation exists at the beginning and again at the end of the process: at the beginning, to determine more definitely and precisely the nature of the difficulty to be dealt with; at the end, to test the value of some hypothetically entertained conclusion. Between those two termini of observation, we find the more distinctively *mental* aspects of the entire thought-cycle: (*i*) inference, the suggestion of an explanation or solution; and (*ii*) reasoning, the development of the bearings and implications of the suggestion. Reasoning requires some experimental observation to confirm it, while experiment can be economically and fruitfully conducted only on the basis of an idea that has been tentatively developed by reasoning.

The disciplined, or logically trained, mind—the aim of the educative process—is the mind able to judge how far each of these steps needs to be carried in any particular situation. No cast-iron rules can be laid down. Each case has to be dealt with as it arises, on the basis of its importance and of the context in which it occurs. To take too much pains in one case is as foolish—as illogical—as to take too little in another. At one extreme, almost any conclusion that insures prompt and unified action may be better than any long delayed conclusion; while at the other, decision may have to be postponed for a long period—perhaps for a lifetime. The trained mind is the one that best grasps the degree of observation, forming of ideas, reasoning, and experimental testing required in any special case, and that profits the most, in future thinking, by mistakes made in the past. What is important is that the mind should be sensitive to problems and skilled in methods of attack and solution.

THE INDUCTIVE-DEDUCTIVE PROCESS IN THINKING[14]

My chief concern is to modify the traditional statement of induction and deduction as being logically movements respectively from the particular to the general and from the general to the particular.

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[14] From *The Journal of Philosophy*, Vol. XIX, pp. 29-38.

Induction I take to be a movement from facts to meaning; deduction a development of meanings, an exhibition of implications, while I hold that the *connection* between fact and meaning is made only by an *act* in the ordinary physical sense of the word act, that is, by experiment involving movement of the body and change in surrounding conditions. There are of course points of contact between the traditional statement and that which I have just made. Facts, data, are logically speaking particulars, while meaning functions as a universal. But the traditional discussion takes either particular or universal or both for granted as given, while I am trying to account for them, and to account for them in terms of the reflective transformation of an experienced situation from a confused and uncertain state to a clear and coherent condition. In this process, data with their particularistic function present themselves when the situation is subjected to analytic observation; they represent the attempt to specify the problem. Suggested meanings present themselves as the means of restoring unity, coherence and consistency to the particulars. As such they have the function of universality. Experiment is the indicated application of meanings to the particulars to see what happens—to see whether the suggested unification can be carried out and maintained. Experiment has a two-fold function. From the side of suggested meanings it is a *test;* from the side of the otherwise fragmentary data, it supplies organization, system.

Now one of the most marked differences between poor thinking and good thinking is the former's premature acceptance and assertion of suggested meanings. One of the marks of controlled thinking is postponement of such acceptance. Consequently I inserted between the problem and the presentation of a suggestion the requirement of analytic examination of the "facts of the case." This "step" is not however different in critical thinking from the step of a tentative or hypothetical adoption of a suggestion. It marks the endeavor to *control* the form which a hypothetical meaning takes. The point as regards my view of induction can be made clearer by distinguishing between the inductive movement and induction as a critically executed function. Both terminate logically in an hypothesis. But in ordinary thinking no pains are taken to control the formation of the hypothesis. In critical or scientific inquiry great pains are taken to secure an accurate specification and collection of observed data as the means of control. This "step" is in my opinion the characteristic trait of *scientific* induction. There is no implication that suggestions do not arise until this step is taken. On the contrary suggestions swarm and press for acceptance. That is the very danger against which systematically executed analytic observation protects us.

Mill set out to lay down rules for induction which shall be as stringent as syllogistic rules were for Aristotelian deduction. Now as against this point of view it seems to me essential to maintain that the occurrence to the mind of explanatory "causes" is not a matter which can ever be subjected to stringent rules. The elements of individual capacity and of accident can never be excluded in the inductive operation. Huxley remarks that after reading Darwin and Wallace their theory of the origin of species seemed so obvious that he could only wonder how he and others who had access to the same facts should not have thought of such an obvious explanation. Here is the factor which can not be reduced to rule as Mill set out to reduce it. But on the other hand, a certain degree of regulation of occurrence of hypotheses does obviously occur. How? The reply is that the analytic examination (extensive and intensive) of observed events supplies such control as is available. This process can be reduced to a considerable extent to rules. Mill's "canons" are not what he took them to be, but they are, especially the method of Difference and the Joint Method, statements of the way to conduct observation in order to secure the data which are *most likely* to render the suggestion of meaning (hypothesis, theory, "cause") relevant and fruitful—"most likely," other things being equal. There is no guarantee like that of the Aristotelian syllogism such as Mill aspired to.

Instead of ruling out Mill's contribution to the theory of induction this places it where it belongs. Just because the phase of happy guessing *can not be eliminated,* specification of the nature of the problem or analytic observation is of transcendent importance in induction. The performance of analytic observation of course involves experiment; it does not precede it. And it is guided by some idea or suggestion in most cases. Nevertheless there is a *logical* difference between experiment as resulting in data which affect the *formation* of a hypothesis and as *affecting* its acceptance. This is true even when the *same* experiment has as matter of fact both effects. Logically, we must distinguish the two results, although practically (as has been said) the ideal or limit of scientific method is that the same concrete procedure should effect both of them.

This is not a matter of splitting hairs. Practically it is essential in order that the hypothetic character of an explanatory conception may be adequately apprehended; and that the one thinking may make certain that a proving or testing experiment brings to light *other* facts than those which have led to its formation and (tentative) adoption. One has only to read current literature on spiritualism and interpretation of dreams, proceeding from men who have established scientific reputations in other fields, to note the practical importance of this discrimination. The history of science is full of similar cases—such as the elaboration of Weissmannism.

The necessity of information about the problematic situation is not only admitted, but insisted upon. It expresses precisely the need of regulating the formation of conceptions by analytic observation which has just been dwelt upon. But it is denied unqualifiedly that this information operates logically after the manner of a premise of deductive reasoning. If it did, any two men with the same technical competency would collect the same data and give their elements the same weight. Suggestion, the occurrence of a hypothetical meaning, is in last analysis a brute fact, alogical. It happens or it doesn't; a certain "idea" presents itself or it doesn't; some other conception holds the mind. (That a similar inductive jump actually takes place in all significant deductions, I do not question. But this does not identify their functions, that is respective uses, values, characteristic results.)

There is a difference between saying that the suggestion of a hypothesis would not *occur* without prior experience and that it *rests* upon the use of prior experience. The former is a physical statement, the latter is a logical one. In fact men often have a suggestion occur to them without being aware of the prior experience which enabled the suggestion to spring up. Even in the cases when they are aware of an earlier experience which generated the suggestion they do not, if they are wise, place the suggesting experience and the suggested meaning in the relation of premise and conclusion, but only in that of suggester and suggested—"association of ideas" in common parlance.

The logical question is whether the two situations *are* analogous. Knowledge exists and is used to suggest a hypothesis. But the question for *present knowledge* is whether the old case or rule is or is not applicable to the new one. Many of our common errors come from assuming that what is known in some cases is also knowledge for the case in hand. This kind of subsumption is the essence of all dogmatism. Deductive reliance upon old knowledge, that is putting the old case and the conception it suggests in the new case in the relation of logical premise and conclusion, is precisely the thing against which the inductive function has to safeguard us. That a trained man can rely upon old knowledge more confidently than an untrained one is a fact. But the logically trained man still makes a distinction between old knowledge as a source of suggestions and as a deductive premise for a conclusion. The analytic inspection as the crucial thing in induction has to extend not merely to the present problematic situation but to the prior situations from which a would-be rule or conclusion springs up. Only in this way, can we safeguard the acceptance of a suggestion by determining the degree of similarity which exists between the two cases. In short, the *hypothetical* character of inductive inference lies precisely in the supposition of analogy between the present problematic cases and other assured cases. There is no paradox in the fact that what is knowledge in one context is hypothesis or even error in another. But it is a fact which precludes that acceptance of prior knowledge as a deductive premise.

The assumption of a plurality of hypotheses as applicable (that is, as worth trying to apply) to the same set of facts is of the essence of skepticism. Such an assumption is itself involved in the hypotheses; or it is itself a hypothesis, namely, that each one of a number of hypotheses having *prima facie* claims is worth developing and examining. Skepticism about the categorical value of an inductive inference is a prerequisite of good thinking. Part of the worth of competing hypotheses and of the method of successive elisions is that it fosters precisely this healthy skepticism.

Since all competing hypotheses are equally suggested by the problematic situation in conjunction with prior analogous situations, they are *not* deductive conclusions from identical premises but are suggestions springing up from different sources. Each may need deductive amplification and be worth experimental testing. If one hypothesis is good because it starts one train of deductive implications and initiates one set of experiments, several are better because they extend the operation. In any complicated case, it would be practically impossible to arrive at a sound conclusion save as various deductive systems were compared and the results of different experiments used to check one another.

Just as induction employs selected matter-of-fact information in forming a hypothesis, so deduction employs a system of previously formed conceptions or meanings or relations. It has to pick out and adapt for the purpose in hand, which is set by the problem. This selection is inductive because it involves forming an hypothesis regarding their value or applicability for the purpose in hand. Their established position within the general system of types of implication does not guarantee their appropriateness in the given context any more than the assured place of information in one context guarantees its use in a new problematic situation.

In the degree in which any job of thinking is well done, experimenting and deduction are *involved* in induction—and so on all the way around. But this factual involvement does not mean logical identification. One might contend that a *science* of physiology depended upon ability to detect chemical *processes* and trace their workings with respect to all the functions of the organism. Would this cancel the distinction between breathing and circulation, even if it were shown that they not merely depend upon each other but that fundamentally similar chemical reactions were found in both? Function is not a separate process: to suppose that it is, seems to me the error of all abstractionism and absolutism. It is, however, a distinctive matter, for it concerns the results of processes. A man may go from New York to Chicago and from Chicago to New York upon the same tracks, in the same car and with the same engineer. But the purpose, the outcome is different. So is it with induction and deduction. The more we become aware of the identity of psychological process, the more the difference in function becomes significant. To ignore this distinctiveness of function because of the unity of act is to deliver the cause of concrete, psychological thinking into the hands of the enemy—

those who assert that all true reasoning is deductive and that induction is a mere psychological preliminary, important only in the biography of the individual thinker.

THE PRACTICAL TEST OF KNOWLEDGE IS REAL AND OBJECTIVE [15]

In current philosophy, everything of a practical nature is regarded as "merely" personal, and the "merely" has the force of denying legitimate standing in the court of cosmic jurisdiction. This conception seems to me the great and the ignored assumption in contemporary philosophy: many who might shrink from the doctrine if expressly formulated hang desperately to its implications. Yet surely as an underlying assumption, it is sheer prejudice, a culture-survival. If we suppose the traditions of philosophic discussion wiped out and philosophy starting afresh from the most active tendencies of to-day,—those striving in social life, in science, in literature, and art,—one can hardly imagine any philosophic view springing up and gaining credence, which did not give large place, in its scheme of things, to the practical and personal, and did not give it to them without employing disparaging terms, such as phenomenal, merely subjective, and so on. Why, putting it mildly, should what gives tragedy, comedy and poignancy to life, be excluded from things? Doubtless, what we call life, what we take to be genuinely vital, is not all of things, but it is a part of things; and is that part which counts most with the philosopher—unless he has quite parted with his ancient dignity of lover of wisdom.

What becomes of philosophy so far as humane and liberal interests are concerned, if, in an age when the person and the personal loom large in politics, industry, religion, art, and science, it contents itself with this parrot cry of phenomenalism, whenever the personal comes into view?

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[15] From "Does Reality Possess Practical Character?" in *Essays in Honor of William James*, pp. 67-71.

When science is carried by the idea of evolution into introducing into the world the principles of initiative, variation, struggle, and selection; and when social forces have driven into bankruptcy absolutistic and static dogmas as authorities for the conduct of life, it is trifling for philosophy to decline to look the situation in the face. The relegation, as matter of course, of need, of stress and strain, strife and satisfaction, to the merely personal and the merely personal to the limbo of something which is neither flesh, fowl, nor good red herring, seems the thoughtless rehearsal of ancestral prejudice.

When we get beyond the echoing of tradition, the sticking point seems to be the relation of knowledge to the practical function of things. Let reality be in itself as "practical" as you please, but let not this practical character lay profane hands on the ark of truth. Every new mode of interpreting life—every new gospel—is met with the charge of antinomianism. An imagination bound by custom apprehends the restrictions that are relaxed and the checks that are removed, but not the inevitable responsibilities and tests that the new idea brings in. And so the conception that knowledge makes a difference in and to things looks licentious to those who fail to see that the necessity of doing well this business, of making the right difference, puts intelligence under bonds it never yet has known: most of all in philosophy, the most gayly irresponsible of the procedures, and the most irresponsively sullen, of the historic fruits of intelligence.

Why should the idea that knowledge makes a difference to and in things be antecedently objectionable? If one is already committed to a belief that Reality is neatly and finally tied up in a packet without loose ends, unfinished issues or new departures, one would object to knowledge making a difference just as one would object to any other impertinent intruder. But if one believes that the world itself is in transformation, why should the notion that knowledge is the most important mode of its modification and the only organ of its guidance be *a priori* obnoxious?

There is, I think, no answer save that the theory of knowledge has been systematically built up on the notion of a static universe so that even those who are perfectly free in accepting the lessons of physics and biology concerning moving energy and evolution, and of history concerning the constant transformation of man's affairs (science included), retain an unquestioning belief in a theory of knowledge which is out of any possible harmony with their own theory of the matters to be known. Modern epistemology, having created the idea that the way to frame right conceptions is to analyze knowledge, has strengthened this view. For it at once leads to the view that realities must themselves have a theoretic and intellectual complexion—not a practical one. This view is naturally congenial to idealists; but that realists should so readily play into the hands of idealists by asserting what, on the basis of a formal theory of knowledge, realities must be, instead of accepting the guidance of things in divining what knowledge *is*, is an anomaly so striking as to support the view that the notion of static reality has taken its last stand in ideas about knowledge.

CHAPTER SEVEN

THE INSTRUMENTAL THEORY OF TRUTH

TRUTH AND REALITY[1]

THE whole agnostic, positivistic controversy, is flanked by a single move. The issue is not an ideally necessary but actually impossible copying, *versus* an improper but unavoidable modification of reality through organic inhibitions and stimulations: but it is the right, the economical, the effective, and, if one may venture, the useful and satisfactory reaction *versus* the wasteful, the enslaving, the misleading and the confusing reaction. The presence of organic responses, influencing and modifying every content, every subject-matter of awareness, is the undoubted fact. But the significant thing is the *way* organic behavior enters in—the *way* it influences and modifies.

We assign very different values to different types of "knowledge"—or subject-matters involving organic attitudes and operations. Some are only guesses, opinions, suspicious characters; others are "knowledge" in the honorific and eulogistic sense—science; some turn out mistakes, blunders, errors. Whence and how this discrimination of character in what is taken at its own time to be good knowledge? Why and how is the matter of some "knowledge" genuine-knowing and of other misknowing?

Awareness is itself a blanket term, covering, in the same bed, delusion, doubt, confusion, ambiguity, and definition, organization, logical conclusiveness assured by evidence and reason. Any naturalistic or realistic theory is committed to the idea that all of these terms bear impartially the same relation to things considered as sheer existences. What we must have in any case is the same existences—the same in kind—only differently arranged or linked up. But why then the tremendous difference in value? And if the unnaturalist, the non-realist, says the difference is one of existential kind, made by the working here malign, there benign, of "consciousness," "psychical" operations and states, upon the existences which are the direct subject-matter of knowledge, there is still the problem of discriminating the conditions and nature of the respective beneficent and malicious interventions of the peculiar "existence" labelled consciousness. Of course on the theory I am interested in expounding, the so-called action of "consciousness" means simply the organic releases in the way of behavior which are the conditions of awareness, and which also modify its content.

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[1] From "Does Reality Possess Practical Character?" in *Essays in Honor of William James*, pp. 54-57.

The realness of error, ambiguity, doubt and guess poses a problem. It is a problem which has perplexed philosophy so long and has led to so many speculative adventures, that it would seem worth while, were it only for the sake of variety, to listen to the pragmatic solution. It is the business of that organic adaptation involved in all knowing to make a *certain* difference in reality, but *not* to make any old difference, any casual difference. The right, the true, and good difference is that which carries out satisfactorily the specific purpose for the sake of which knowing occurs. All manufactures are the product of an activity, but it does not follow that all manufactures are equally good. And so all "knowledges" are differences made in things by knowing, but some differences are not calculated or wanted in the knowing, and hence are disturbers and interlopers when they come—while others fulfil the intent of the knowing, being in such harmony with the consistent behavior of the organism as to reinforce and enlarge its functioning. A mistake is literally a mishandling; a doubt is temporary suspense and vacillation of reactions; an ambiguity is the tension of alternative but incompatible modes of responsive treatment; an inquiry is a tentative and retrievable (because intra-organic) mode of activity entered upon prior to launching upon a knowledge which is public, ineluctable—without anchors to windward—*because* it has taken physical effect through overt action.

It is practically all one to say that the norm of honorable knowing is to make no difference in *its* object, and that its aim is to attain and buttress a specific kind of difference in reality. Knowing fails in its business if it makes a change in its *own* object—that is a mistake; but its own object is none the less a prior existence changed in a certain way. Nor is this a play upon the two senses—end and subject-matter of "object." The organism has its appropriate functions. To maintain, to expand adequate functioning is its business. This functioning does not occur *in vacuo*. It involves cooperative and readjusted changes in the cosmic medium. Hence the appropriate subject-matter of awareness or consciousness is not reality at large, a metaphysical heaven to be mimeographed at many removes upon a badly constructed mental carbon paper which yields at best only fragmentary, blurred, and erroneous copies. Its proper and legitimate object is that relationship of organism and environment in which functioning is most amply and effectively attained; or by which, in case of obstruction and consequent needed experimentation, its later eventual free course is most facilitated. As for the other reality, metaphysical reality at large, it may, so far as awareness is concerned, go to its own place.

For ordinary purposes, that is, for practical purposes, the truth and the realness of things are synonyms. A reality which is so taken in organic response as to lead to subsequent reactions that are off the track and aside from the mark, while it is, existentially speaking, perfectly real, is not *good* reality. It lacks the hall-mark of value. Since it is a certain *kind* of object which we want, that which will be as favorable as possible to a consistent and liberal or growing functioning, it is this kind, the *true* kind, which for us monopolizes the title of reality. Pragmatically, teleologically, this identification of truth and "reality" is sound and reasonable: rationalistically, it leads to the notion of the duplicate versions of reality, one absolute and static because exhausted; the other phenomenal and kept continually on the jump because otherwise its own inherent nothingness would lead to its total annihilation. Since it is only genuine or sincere things, things which are good for what they pretend to in the way of consequences, that we want or are after, *morally* they alone are "real."

THE CORRESPONDENCE THEORY OF TRUTH IS INADEQUATE [2]

That fruitful thinking—thought that terminates in valid knowledge—goes on in terms of the distinction of facts and judgment, and that valid knowledge is precisely genuine correspondence or agreement, *of some sort*, of fact and judgment, is the common and undeniable assumption. But the discussions are largely carried on in terms of an epistemological dualism, rendering the solution of the problem impossible in virtue of the very terms in which it is stated. The distinction is at once identified with that between mind and matter, consciousness and objects, the psychical and the physical, where each of these terms is supposed to refer to some fixed order of existence, a world in itself. Then, of course, there comes up the question of the nature of the agreement, and of the recognition of it. What is the experience in which the survey of both idea and existence is made and their agreement recognized? Is it an idea? Is the agreement ultimately a matter of self-consistency of ideas? Then what has become of the postulate that truth is agreement of idea with existence beyond idea? Is it an absolute which transcends and absorbs the difference? Then, once more, what is the test of any specific judgment? What has become of the correspondence of fact and thought?

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[2] From *Essays in Experimental Logic*, pp. 231-236.

Or, more urgently, since the pressing problem of life, of practice and of science, is the discrimination of the *relative*, or *superior*, validity of this or that theory, plan, or interpretation, what is the criterion of truth within present non-absolutistic experience, where the distinction between factual conditions and thoughts and the necessity of some working adjustment persist?

Putting the problem in yet another way, either both fact and idea are present all the time or else only one of them is present. But if the former, why should there be an idea at all, and why should it have to be tested by the fact? When we already have what we want, namely, existence, reality, why should we take up the wholly supernumerary task of forming more or less imperfect ideas of those facts, and then engage in the idle performance of testing them by what we already know to be? But if only ideas are present, it is idle to speak of comparing an idea with facts and testing its validity by its agreement. The elaboration and refinement of ideas to the uttermost still leaves us with an idea, and while a self-consistent idea stands a show of being true in a way in which an incoherent one does not, a self-consistent idea is still but a hypothesis, a candidate for truth. Ideas are not made true by getting bigger. But if only "facts" are present, the whole conception of agreement is once more given up—not to mention that such a situation is one in which there is by definition no thinking or reflective factor at all.

This suggests that a strictly monistic epistemology, whether idealistic or realistic, does not get rid of the problem. Suppose for example we take a sensationalistic idealism. It does away with the ontological gulf between ideas and facts, and by reducing both terms to a common denominator seems to facilitate fruitful discussion of the problem. But the problem of the distinction and reference (agreement, correspondence) of two types or sorts of sensations still persists. If I say the box there is square, and call "box" one of a group of ideas or sensations and "square" another sensation or "idea," the old question comes up: Is "square" already a part of the "facts" of the box, or is it not? If it is, it is a supernumerary, an idle thing, both as an idea and as an assertion of fact; if it is not, how can we compare the two ideas, and what on earth or in heaven does their agreement or correspondence mean? If it means simply that we experience the two "sensations" in juxtaposition, then the same is true, of course, of any casual association or hallucination. On the sensational basis, accordingly, there is still a distinction of something "given," "there," brutally factual, the box, and something else which stands on a different level, ideal, absent, intended, demanded, the "square," which is asserted to hold good or be true of the thing "box." The fact that both are sensations throws no light on the logical validity of any proposition or belief, because by theory a like statement holds of every possible proposition.

The same problem recurs on a realistic basis. For example, there has recently been propounded the doctrine of the distinction between relations of space and time and relations of meaning or significance, as a key to the problem of knowledge. Things exist in their own characters, in their temporal and spatial relations. When knowledge intervenes, there is nothing new of a subjective or psychical sort, but simply a new relation of the things—the suggesting or signifying of one thing by another. Now this seems to be an excellent way of stating the logical problem, but, I take it, it states and does not solve. For the characteristic of such situations, claiming to terminate in knowledge, is precisely that the meaning-relation is predicated *of* the other relations; it is referred to them; it is not simply a supervention existing side by side with them, like casual suggestions or the play of phantasy. It is something which the facts, the qualitative space and time things, must bear the burden of, must accept and take unto themselves as part of themselves. Until this happens, we have only "thinking," not accomplished knowledge. Hence, logically, the existential relations play the rôle of fact, and the relation of signification that of idea, distinguished from fact and yet, if valid, to hold *of* fact. In other words, "ideas" is a term capable of assuming any definition which is logically appropriate—say, meaning. It need not have anything to do with the conception of little subjective entities or psychical stuffs.

This appears quite clearly in the following quotation: "It is the ice which means that it will cool the water, just as much as it is the ice which does cool the water when put into it." There is, however, a possible ambiguity in the statement. That the "ice" (the thing regarded as ice) *suggests* cooling is as real as is a case of actual cooling. But, of course, not every suggestion is valid. The "ice" may be a crystal, and it will not cool water at all. So far as it is already certain that this *is* ice, and also certain that ice, under all circumstances, cools water, the meaning-relation stands on the same level as the physical, being not merely suggested, but part of the facts ascertained. It is not a meaning-relation as such at all. We already have truth; the entire work of knowing as logical is done; we have no longer the relation characteristic of reflective situations. Here again the implication of the thinking situation is of some "correspondence" or "agreement" between two sets of distinguished relations; the problem of valid determination remains the central question of any theory of knowing in its relation to facts and truth.

THE INSTRUMENTAL THEORY OF TRUTH [3]

I hope the above statement of the difficulty, however inadequate, will serve at least to indicate that a functional logic inherits the problem in question and does not create it; that it has never for a moment denied the *prima facie* working distinction between "ideas," "thoughts," and "facts," "existences," "the environment," nor the necessity of a control of meaning by facts. It is concerned not with denying, but with understanding. What is denied is not the genuineness of the problem of the terms in which it is stated, but the reality and value of the orthodox interpretation. What is insisted upon is the relative, instrumental, or working character of the distinction—that it *is a logical* distinction, instituted and maintained in the interests of intelligence, with all that intelligence imports in the exercise of the life functions.

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[3] From *Essays in Experimental Logic*, pp. 236-241; *Influence of Darwin on Philosophy and Other Essays*, pp. 138-142.

It may prove convenient to take an illustration of a man lost in the woods, taking this case as typical of any reflective situation in so far as it involves perplexity—a problem to be solved. The problem is to find a correct idea of the way home—a practical idea or plan of action which will lead to success, or the realization of the purpose to get home. Now the critics of the experimental theory of logic make the point that this practical idea, the truth of which is evidenced in the successful meeting of a need, is dependent for its success upon a purely presentative idea, that of the existent environment, whose validity has nothing to do with success but depends on agreement with the given state of affairs. It is said that what makes a man's idea of his environment true is its agreement with the actual environment, and "generally a true idea in any situation consists in its agreement with reality." I have already indicated my acceptance of this formula. But it was long my misfortune not to be possessed offhand of those perfectly clear notions of just what is meant in this formula by the terms "idea," "existence," and "agreement" which are possessed by other writers on epistemology; and when I analyzed these notions I found the distinction between the practical idea and the theoretical not fixed nor final, and I found a somewhat startling similarity between the notions of "success" and "agreement."

Just what is the environment of which an idea is to be formed: *i.e.*, what is the intellectual content or objective detail to be assigned to the term "environment"? It can hardly mean the actual visible environment—the trees, rocks, etc., which a man is actually looking at. These things are there and it seems superfluous to form an idea of them; moreover, the wayfaring man, though lost, would have to be an unusually perverse fool if under such circumstances he were unable to form an idea (supposing he chose to engage in this luxury) in agreement with these facts. The environment must be a larger environment than the visible facts; it must include things not within the direct ken of the lost man; it must, for instance, extend from where he is now to his home, or to the point from which he started. It must include unperceived elements in their contrast with the perceived. Otherwise the man would not be lost. Now we are at once struck with the facts that the lost man has no alternative except either to wander aimlessly or else to *conceive* this inclusive environment; and that this conception is just what is meant by idea. It is not some little psychical entity or piece of consciousness-stuff, but is *the interpretation of the locally present environment in reference to its absent portion,* that part to which it is referred as another part so as to give a view of a whole. Just how such an idea would differ from one's plan of action in finding one's way, I do not know. For one's plan (if it be really a plan, a method) is a conception of what is given in its hypothetical relations to what is not given, employed as a guide to that act which results in the absent being also given. It is a map constructed with one's self lost and one's self found, whether at starting or at home again, as its two limits. If this map in its specific character is not also the only guide to the way home, one's only plan of action, then I hope I may never be lost. It is the *practical* facts of being lost and desiring to be found which constitute the limits and the content of the "environment."

Then comes the test of *agreement* of the idea and the environment. Supposing the individual stands still and attempts to compare his idea with the reality, with what reality is he to compare it? Not with the presented reality, for *that* reality is the reality of himself lost; not with the complete reality, for at this stage of proceedings he has only the idea to stand for the complete theory. What kind of comparison is possible or desirable then, save to treat the mental layout of the whole situation as a working hypothesis, as a plan of action, and proceed to *act* upon it, to use it as a director and controller of one's divagations instead of stumbling blindly around until one is either exhausted or accidentally gets out? Now suppose one uses the idea—that is to say, the present facts projected into a whole in the light of absent facts—as a guide of action. Suppose, by means of its specifications, one works one's way along until one comes upon familiar ground—finds one's self. *Now*, one may say, my idea was right, it was in accord with facts; it agrees with reality. That is, acted upon sincerely, it has led to the desired conclusion; it has, *through action*, worked out the state of things which it contemplated or intended. The agreement, correspondence, is between purpose, plan, and its own execution, fulfillment; between a map of a course constructed for the sake of guiding behavior and the result attained in acting upon the indications of the map. Just how does such agreement differ from success?

If we exclude acting upon the idea, no conceivable amount or kind of intellectualistic procedure can confirm or refute an idea, or throw any light upon its validity. How does the non-pragmatic view consider that verification takes place? Does it suppose that we first look a long while at the facts and then a long time at the idea, until by some magical process the degree and kind of their agreement become visible? Unless there is some such conception as this, what conception of agreement is possible except the experimental or practical one? And if it be admitted that verification involves action, how can that action be relevant to the truth of an idea, unless the idea is itself already relevant to action? If by acting in accordance with the experimental definition of facts (viz., as obstacles and conditions), and the experimental definition of the end or intent (viz., as plan and method of action) a harmonized situation effectually presents itself, we have the adequate and the only conceivable verification of the intellectual factors. If the action indicated be carried out and the disordered or disturbed situation persists, then we have not merely confuted the tentative positions of intelligence, but we have in the very process of acting introduced new data and eliminated some of the old ones, and thus afforded an opportunity for the resurvey of the facts and the revision of the plan of action. By acting faithfully upon an inadequate reflective presentation, we have at least secured the elements for its improvement. This, of course, gives no absolute guaranty that the reflection will at any time be so performed as to prove its validity in fact. But the self-rectification of intellectual content through acting upon it in good faith is the "absolute" of knowledge, loyalty to which is the religion of intellect.

Not infrequently the intellectualist admits that the process of verification is experimental, consisting in setting on foot various activities that express the intent of the idea and confirm or refute it according to the changes effected. This seems to mean that truth is simply the tested or verified belief as such. But then a curious reservation is introduced; the experimental process *finds*, it is said, that an idea is true, while the error of the pragmatist is to take the process by which truth is *found* as one by which it is made. The claim of "making truth" is treated as blasphemy against the very notion of truth: such are the consequences of venturing to translate the Latin "verification" into the English "making true."

If we face the bogie thus called up, it will be found that the horror is largely sentimental. Suppose we stick to the notion that truth is a character which belongs to a meaning so far as tested through action that carries it to successful completion. In this case, to make an idea true is to modify and transform it until it reaches this successful outcome: until it initiates a mode of response which in its issue realizes its claim to be the method of harmonizing the discrepancies of a given situation. The meaning is remade by constantly acting upon it, and by introducing into its content such characters as are indicated by any resulting failures to secure harmony. From this point of view, verification and truth are two names for the same thing. We call it "verification" when we regard it as process; when the development of the idea is strung out and exposed to view in all that makes it true. We call it "truth" when we take it as product, as process telescoped and condensed.

Suppose the idea to be an invention, say of the telephone. In this case, is not the verification of the idea and the construction of the device which carries out its intent one and the same? In this case, does the truth of the idea mean anything else than that the issue proves the idea can be carried into effect? There are certain intellectualists who are not of the absolutist type; who do not believe that all of men's aims, designs, projects, that have to do with action, whether industrial, social, or moral in scope, have been from all eternity registered as already accomplished in reality. How do such persons dispose of this problem of the truth of practical ideas?

Is not the truth of *such* ideas an affair of *making* them true by constructing, through appropriate behavior, a condition that satisfies the requirements of the case? If, in this case, truth means the effective capacity of the idea "to make good," what is there in the logic of the case to forbid the application of analogous considerations to any idea?

I hear a noise in the street. It suggests as its meaning a street-car. To test this idea I go to the window and through listening and looking intently—the listening and the looking being modes of behavior—organize into a single situation elements of existence and meaning which were previously disconnected. In this way an idea is made true; that which was a proposal or hypothesis is no longer merely a propounding or a guess. If I had not reacted in a way appropriate to the idea it would have remained a mere idea; at most a candidate for truth that, unless acted upon, upon the spot, would always have remained a theory.

Now in such a case—where the end to be accomplished is the discovery of a certain order of facts—would the intellectualist claim that apart from the forming and entertaining of some interpretation, the category of truth has either existence or meaning? Will he claim that without an original practical uneasiness introducing a practical aim of inquiry there must have been, whether or no, an idea? Must the world for some purely intellectual reason be intellectually reduplicated? Could not that occurrence which I now identify as a noisy street-car have retained, so far as pure intelligence is concerned, its unidentified status of being mere physical alteration in a vast unidentified complex of matter-in-motion? Was there any *intellectual* necessity that compelled the event to arouse just this judgment, that it meant a street-car? Was there any physical or metaphysical necessity? Was there any necessity save a need of characterizing it for some purpose of our own? And why should we be mealy-mouthed about calling this need practical? If the necessity which led to the formation and development of an intellectual judgment was purely objective (whether physical or metaphysical) why should not the thing have also to be characterized in countless millions of other ways; for example, as to its distance from some crater in the moon, or its effect upon the circulation of my blood, or upon my irascible neighbor's temper, or bearing upon the Monroe Doctrine? In short, do not intellectual positions and statements mean new and significant events in the treatment of things?

KNOWLEDGE OF PAST AND FUTURE [4]

Quite apart from pragmatism, an empiricist who is empirical in the sense of trying to follow the method of science in dealing with natural existences, will feel logically bound to call nothing knowledge which does not admit of verification. To him, then, judgments about the past will present themselves as hypothetical until verified —which can take place only in some object of present or future experience. In contemplating the possibility of applying this conception to ordinary "memory-judgments," he will be struck by what is going on in the natural sciences. He will see that many zoölogists have ceased to be satisfied with theories about past evolution which rest simply upon a plausible harmonizing of past events, that they are now engaged in experimentation to get present results, that the tendency is to find present, and hence observable, processes which determine certain consequences. He finds geologists attempting verification by experiment as well as by search for additional facts. Turning to another field of judgments about the past he finds that "literary" historians are influenced by the striking or picturesque or moral phases of the events they deal with, and by their lending themselves to composition into a harmonious picture; while "scientific" historians are not only more scrupulous about the facts, but search for new, as yet hidden, facts, to bear out their inferential reconstructions. There is nothing inherently paradoxical in saying that such emphatic scientific cases should give us our clew to understanding the logic of every-day cases which are not scientifically regulated.

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[4] From *The Journal of Philosophy*, Vol. XIX, pp. 310-316; 352-355; Vol. XXI, pp. 204, 208-209.

I see a letter box; there is an observed thing. It is a commonplace that every recollection starts, directly or indirectly, with something perceived, immediately present. It suggests a letter. This may remain a mere suggestion. The thought of a letter written yesterday or last year may become simply something for fancy to sport with—an esthetic affair, what I call a reminiscence. Truth or falsity does not enter into the case. But it may give rise to questions. Did I actually write the letter or only mean to? If I wrote it, did I mail it or leave it on my desk or in my pocket? Then I do something. I search my pockets. I look on my desk. I may even write the person in question and inquire if he received a letter written on a certain date. By such means a tentative inference gets a categorical status. A logical right accrues, if the experiments are successful, to assert the letter was or was not written. Generalize the case and you get the logical theory concerning knowledge about the past.

Take the case of questions about the past which are intrinsically unanswerable, at least by any means now at our command. What did Brutus eat for his morning meal the day he assassinated Cæsar? There are those who call a statement on such a matter a judgment or proposition in a logical sense. It seems to me that at most it is but an esthetic fancy such as may figure in the pages of a historic novelist who wishes to add realistic detail to his romance. Whence comes the intellectual estoppal? From the fact, I take it, that the things eaten for breakfast have left no consequences which are *now* observable. Continuity has been interrupted. Only when the past event which is judged is a going concern having effects still directly observable are judgment and knowledge possible.

The point of this conclusion is that it invalidates the sharp and fixed line between the meaning of the past and the so-called means of verification. So far as the meaning is wholly of and in the past, it can not be recovered for knowledge. This negative consideration suggests that the true object of a judgment *about* a past event may be a past-event-having-a-connection-continuing-into-the-present-and-future. This brings us back, of course, to my original contention. What can be said by way of fact to support its hypothetical possibility?

Let us begin with what is called reminiscence. The tendency to tell stories of what has happened to one in the past, to revive interesting situations in which one has figured, is a well-known fact. So far as the stories are told to illustrate some present situation, to supply material to deal with some present perplexity, to get instruction or give advice, they exemplify what is said about prospective meaning. But there are only a few persons who confine themselves to what is intellectually pertinent, who cut down reminiscence to its bare logical bones. Esthetic interests modify the tale, and personal, more or less egoistic interests fill it up and round it out. The development of reminiscence in old age is doubtless in part compensatory for withdrawal from the actual scene and its imminent problems, its urgencies for action.

Taking, however, whatever intellectual core there may be, such as the material that is employed to give advice to another as to how to deal with a confused and unclear situation, there appears a clear distinction between subject-matter employed and object meant. The past occurrence is *not* the meaning of the propositions. It is rather so much stuff upon the basis of which to predicate something regarding the better course of action to follow, the latter being the object meant. It makes little difference whether the past episode drawn upon is reported with literal correctness or not. Imagination usually plays with it and in the direction of rendering it more pertinent to the case in hand. This does not necessarily affect the value of the judgment—the advice given—as to the course of action which it is better to pursue, or the *object* of judgment. The facts cited, the illustrative material adverted to in support of the conception that a certain course is better, are subject-matter, but not the meaning or object.

Such a case does not directly and obviously cover judgments *about* the past. If the one giving advice began to reflect upon the pertinency of his own past experience to the new issue, we may imagine him going back over the past episode to judge how correctly he has reported it. Just what was it that happened, anyway? This sort of case is crucial for my theory. It is worthy of note that, by illustration, this examination of the correctness of the present notion about the past arises out of a problem about the present and future. It is conceivable that specific reference to the past is, after all, only part of the procedure of making judgment about the present as adequate as possible.

This point is not stressed, however, for it is, at this stage of discussion, an easy retort that such an inference follows only because the illustration has already been loaded and aimed in that direction. As a suggestion, however, it may be borne in mind. What does positively emerge from the prior discussion is a distinction between *subject-matter* and *object* of judgment and knowledge. How far is the distinction a general one? It is not one introduced *ad hoc* for the discussion of judgments about the past. It characterizes by logical necessity any *inquiry*. For if the object were present, there would be no inquiry, no thought or inference, no judgment in any intellectual sense of that word. On the other hand, there must be subject-matter, there must be accepted considerations, or else there is no basis for constructing or discovering the object.

A verdict represents the judgment in a court of law; it contains the object, the thing meant. Evidence presented and rules of law applied furnish subject-matter. These are diverse and complicated and only gradually is the object framed from them. A scientific inquiry about Einstein's theory, the nature of temperature, or the cause of earthquakes presents the same contrast of an ultimate object, still unattained and questionable, and subject-matter which is progressively presented and sifted till it coheres into an object, when judgment terminates. Subject-matter is not to be confused with data. It is wider than data. It includes all considerations which are adduced as relevant, whether by way of factual data or accepted meanings, while data signifies such facts as are definitely selected for employment as evidential.

If we apply this generic and indispensable distinction to analysis of judgments about the past, it seems to me that the following conclusion naturally issues: The nature of the past event is subject-matter required in order to make a reasonable judgment about the present or future.

The latter thus constitutes the object or genuine meaning of the judgment. Take the illustration of the letter. Its *object* must be described in some such terms as the following. What *is* the state of affairs as between some other person and myself? Is his letter acknowledged or no; is the deal closed, the engagement made, the assurance given or no? The only subject-matter which will permit an answer to the question is some past episode. Hence the necessity of coming to close quarters with that past event. In the subject-matter there are always at least two alternatives, while the object is singular and unmistakable. Either I wrote the letter or I did not. Which thought or hypothesis is correct? There can be no inquiry without just such incompatible alternatives present to mind. I have to clear up the question of what is the *object* of judgment by settling its appropriate subject-matter: what *has* happened. The object of the judgment in short is the fulfillment of an intention. I intended or meant to enter into certain relations with a correspondent. Have I done so or is the matter still hanging fire? Certainly, there does not appear to be anything forced or paradoxical about the view that in all such cases the actual thing meant, the object of judgment, is prospective.

To protect the conclusion from appearing to depend upon the quality of the particular illustration used, namely one involving a personal past and personal course of action, we need an impersonal instance of a past episode. That provided by Mr. Lovejoy may be employed: "When I point to this morning's puddles as proof that it rained last night, the puddles are the means of proof but not the thing proved. For verification-purposes their sole interest to me is not in themselves, but in what they permit me to infer about last night's weather. If someone shows me that they were made by the watering-cart, they become irrelevant to the subject-matter of my inquiry—though the same proposition about the future, 'there will be puddles in the street,' is still fulfilled by them."[5] One wishes that Mr. Lovejoy had subjected his statement to the same critical scrutiny to which he has exposed mine. When it is examined, certain interesting results present themselves.

In the first place, my conception is not contained or expressed by any such judgment as that "there are or will be puddles in the street." The implication of my hypothesis is that the object of judgment is that "prior rain has present and future consequences," such as puddles, or floods, or refreshment of crops, or filling of cisterns, *etc.* In denying that the past event is as such the object of knowledge, it is not asserted that a particular present or future object is its sole and exhaustive object, but that the content of past time has "a future reference and function." That is, the object is some past event in its connection with present and future effects and consequences. The past by itself and the present by itself are both arbitrary selections which mutilate the complete object of judgment. What appears in the above case of the letter as a fulfillment of intention, appears here as a temporal sequence of condition and consequence. In each case, the past incident is part of the subject-matter of inquiry which enters into its *object* only when referred to a present or future event or fact.

In the second place, analysis reveals that the proposition "there will be puddles in the street" is *not* the same in case the passage of the watering-cart is the past event which properly enters into the subject-matter of inquiry. It is by further investigation of present and future facts that it is determined whether a watering-cart or a shower *is* the actual past event. Not all streets will have puddles if the watering-cart was the cause, or at least roofs won't be wet, cisterns won't be replenished, farmers' soil moistened. If we consult the value of accurate weather reports to a mariner or a member of the Chicago Board of Trade, we get light upon the real object of a judgment involving past weather conditions. The point is the connection of past-present-future, a temporal continuum. Precisely to avoid such incomplete inferences as are manifested in the conclusion "there will be puddles in the street" on the basis of considerations like those adduced in Mr. Lovejoy's illustration, we make the exact nature of the past event the theme of exact and scrupulous inquiry.[6]

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[5] A. O. Lovejoy: "Pragmatism versus the Pragmatist," in *Essays in Critical Realism,* p. 69.

The importance of the present as basis of inference about the past is seen in the growing importance in science of contemporary records, registrations, devices for carrying over the past event into things which can be inspected in the present, devices for measuring and registering the lapse of time, *etc.* This makes the difference between scientific thought and loose popular thought. The reference to or connection with the present and future comes in at the completing end. The present not only supplies the only data for a correct inference about the past, but since the potentialities or meanings of the present depend upon the conditions of the past with which they are correlated, future events are also implied as part of the meaning. If a watering-cart, or a local shower, then no effect upon crops, no effect upon the prices of grain; or, on a lesser scale, no needed precautions as to wearing rubbers.

The logical bearing of the earlier reference to the impossibility of judgments about the past without continuing and present consequences ought now to be clearer. The real point at issue is whether, as long as we are dealing with isolated, self-sufficient events or affairs, anything which is properly called knowledge and object of knowledge can exist. The real point of Mr. Lovejoy's argument is that isolated, self-complete things are truly objects of knowledge. My theory denies the validity of this conception. It asserts that mere presence in experience is quite a different matter from knowledge or judgment, which always involves a *connection*, and, where time enters in, a connection of past with present and future.

[6] That is, we examine present things more carefully and extensively.

In the complete object of knowledge, past-present-future events form an integral continuum, so that no part can be taken logically as complete and exhaustive "as such" or "solely" without a mutilation amounting to falsification; that in *inquiry*, aiming at the constitution of such a complete object, a *distinction* between reference to past events as such and present, and reference to future events as such is both legitimate and inevitable—a distinction in which future events supply the point or "meaning," the significance, of the reference to the past event, which functions as subject-matter for determining the status and connections of the future event in the complete object of knowledge.

The reader may not accept this theory, in spite of its congruity with all the best authenticated cases of knowledge of matter of fact, namely, the objects of science. But when the secondary matter of inconsistency or arbitrary paradox is concerned, it is essential to grasp this point. The case of judgment involving past events is but one case of the general (logical) theory as to knowledge. And as I have pointed out before, it makes it possible to drop out the epistemological theory of mysterious "transcendence," and deal with problems on the basis of objective temporal connections of events, where we never are obliged, even in judgments about the remotest geological past, to get outside events capable of future and present consideration. Once recognize that thoughts about the past hang upon present observable events and are verified by future predicted or anticipated events which are capable of entering into direct presentation, and the machinery of transcendence and of epistemological dualism (or monism) is in so far eliminated.

In principle, the problem of anticipatory knowledge introduces nothing not contained in the prior discussion where reference to the future was shown to be involved in knowledge involving the past. But a discussion of the problem shifts somewhat the points of emphasis and it affords an opportunity to make explicit some of the implications of the prior discussion, with reference especially to the place of verification and of representation and ideas in a naturalistic realism which involves neither monistic nor dualistic realism. We may first consider the nature of representation.

In any judgment concerning the future or the past, there is something to which the name representation is appropriate. A present stone stands for an animal living in the past, ashes, for a fire that has died down, an odor for a flower still to be smelled, a sudden oscillation of a needle for an event still to be discovered, and so on.

Now the piece of rock, the ashes, the odor, the oscillating needle are first of all things present in experience on their own account, or noncognitively; then they may become implicated in a reflective inquiry. We may ask what they stand for or indicate, what they give witness to or are evidence of, or what they portend. In this situation and also when it is asserted that they mean or support a certain conclusion, they acquire a representative capacity which they did not inherently possess. The piece of rock is still a piece of rock but it is taken, either hypothetically, or categorically according to the stage of reflection reached, as sign or evidence of something else, a fossil. It exercises a representative *function*, although it is not in its own existence a representation. Just so a poem may be not just enjoyed, but used as evidence of being written by a particular author or as an indication of a certain crisis in the life of its author; an esthetic object in its first intention is not of this sort, but it becomes such when and if it enters as a datum into a judgment about something else. Just so a board may become a sign, a column of mercury an index of temperature, a spire of smoke a clew to fire, a stain the evidence of some chemical reaction. There is a well-known rhetorical device by which a function is transferred to a thing, and we call the thing by the name of its function. Just so we call sounds or marks on paper, words; or a stone, a fossil; just so we may call things having the representation function, representations. In the first case we are not likely to forget that the term used implies a connection, not a self-possessed quality. In the second case, we too easily forget this fact and get into trouble.

Wherever inference or reflection comes in (and I should not call anything knowledge in a logical or intellectual sense unless it does come in), there is, clearly, mediation of an object by some other entity which points to or signifies or represents or gives witness to or evidence of. Nevertheless, thought or inference becomes knowledge in the complete sense of the word only when the indication or signifying is borne out, verified in something directly present, or immediately *experienced*—not immediately known. The object has to be "reached" eventually in order to get verification or invalidation, and when so reached, it is immediately present. Its cognitive status, however, is *mediated;* that is, the object known fulfills some specific function of representation or indication on the part of some other entity. Short of verificatory objects directly present, we have not knowledge, but inference whose content is *hypothetical.* The subject-matter of inference is a candidate or claim to knowledge requiring to have its value tested. The test is found in what is finally immediately present, which has a meaning because of prior mediation which it would not otherwise have.

There is, I think, nothing fundamentally new in this view, although it goes contrary to the more usual belief that knowledge is some kind of direct apprehension or perception of some thing or event. It is not inherently pragmatic. It results from carrying over into the logical theory of knowledge, the methods universally adopted at present by natural science, or inquiry into natural events. It is as appropriate to this kind of science as the assumption that the objects of knowledge are forms or essences which must be directly inspected, was to the Aristotelian science. The "pragmatic" feature comes in when it is noted that experiment or action enters to make the connection between the thing signifying and the thing signified so that inference may pass from hypothesis to knowledge. It is then seen that some "consequences," namely those of the experiment, are an integral part of the completing or fulfilling or leading out of the "representation" into final objects. Thus we again arrive at a union of immediate and mediate in knowledge, instead of their sharp distinction.

Confusion arises sometimes, I think, because Mr. James accepted an "immediate" knowledge, "acquaintance," and applied the conception of transitive leading only to "knowledge about." In the latter he did not emphasize the experimental production of consequences, although he did not deny it. Hence follows the importance of discriminating varieties of pragmatism in discussing theories of knowledge.

These considerations appear pertinent to a discussion of the nature of intellectual anticipations, predictions, *etc.* In my essay on the "Experimental Theory of Knowledge," I pointed out that there is an internal complication in such cases; on the one hand, there is something indubitably present, say, smoke; on the other hand, this is taken to mean something absent, say, fire. Yet it is not a case of sheer absence, such as total ignorance would imply. The fire is presented *as* absent, as intended. Its subsequent presence is required in order to fulfill the reference of the smoke.

The claims of my theory begin when we ask what is the cognitive status of a reminder or reminiscence. I may be reminded of something beautiful which I have read in a poem. Does this make the reminder knowledge? Does it give the smoke or the poem a place in some existential landscape? Does it even depend upon my being able to place the poem with respect to its author, the book where I read it or the time when it was read? What my theory is after is precisely the differentia between a reminder or reminiscence which is esthetic and one which is cognitive or a reminder of *fact*. My theory involves no slurring over of the existence of reminders. It claims that when we take them *as* knowledge we proceed to act upon them, and that the consequences of the acting test the validity of the claim of a recollection to be true knowledge.

What I was and am primarily denying is the statement of the *premises*, or rather the conceptions in terms of which Mr. Lovejoy approaches and states the *problem*. I have not denied that practical or instrumental knowledge involves a representation of non-present existents by present data; I have devoted a good deal of space to enforcing that proposition. What I have denied is that there exists anything to be called "presentative" knowledge in contrast with what Mr. Lovejoy terms instrumental knowledge. I have held that all knowledge whatever involves an inferential or mediational function. I have also denied (what Mr. Lovejoy asserts) that present data, which stand for or mean the "absent" thing, are psychical. Hence my conception of what Mr. Lovejoy calls the "knowing" or "cognitive experience" is radically different from his. To him it is confined to presence of data which are psychical in character; hence any physical contemporaneous thing as well as any past or future event must be external to the "knowing experience." If I had the same premises, I should assert the same conclusion. But my whole point lies in an assertion that this description of the "knowing experience" is mythological. I assert that the "knowing experience" always involves a referential connection between present-non-psychical data and something absent, meant or signified by these non-psychical data. My theory about knowledge involving past events is that it is one case of such reference. But let Mr. Lovejoy or any one else come to my argument with a preconception that I have the same notion of "knowing experience" as identical with present data which he accepts, and misconstruction of every further statement I may make is bound to occur.

IDEALIST AND REALIST OBJECTION TO INSTRUMENTAL LOGIC ANSWERED[7]

It is perhaps dangerous to attempt to follow the inner workings of the processes by which truth is first identified with some superior type of Reality, and then this Truth is taken as the criterion of the truth of ideas; while all the time it is held that truth is something already possessed by ideas as purely intellectual. But there seems to be some ground for believing that this identification is due to a twofold confusion, one having to do with ideas, and the other with things. As to the first point: After an idea is made true, we naturally say, in retrospect, "It *was* true all the time." Now this truism is quite innocuous as a truism, being just a restatement of the fact that the idea has, as matter of fact, worked successfully. But it may be regarded not as a truism but as furnishing some additional knowledge; as if it were, indeed, the dawning of a revelation regarding truth. Then it is said that the idea worked or was verified because it was already inherently, just as idea, the truth; the pragmatist, so it is said, making the error of supposing that it is true because it works. If one remembers that what the experimentalist means is that the effective working of an idea and its truth are one and the same thing—this working being neither the cause nor the evidence of truth but its nature—it is hard to see the point of this statement.

A man under peculiarly precarious circumstances has been rescued from drowning. A by-stander remarks that now he is a saved man. "Yes," replies some one, "but he was a saved man all the time, and the process of rescuing, while it gives evidence of that fact, does not constitute it." Now even such a statement as pure tautology, as characterizing the entire process in terms of its issue, is objectionable only in the fact that, like all tautology, it seems to say something but does not. But if it be regarded as revealing the earlier condition of affairs, apart from the active process by which it was carried to a happy conclusion, such a statement would be monstrously false; and would declare its falsity in the fact that, if acted upon, the man would have been left to drown. In like fashion, to say, *after the event,* that a given idea was true all the time, is to lose sight of what makes an idea an idea, its hypothetical character; and thereby deliberately to transform it into brute dogma—something to which no canon of verification can ever be applied. The intellectualist almost always treats the pragmatic account as if it were, from the standpoint of the pragmatist as well as from his own, a denial of the existence of truth, while it is nothing but a statement of its nature. When the intellectualist realizes this, he will, I hope, ask himself: What, then, on the pragmatic basis is meant by the proposition that an idea is true all the time? If the statement that an idea was true all the time has no meaning except that the idea was one which as matter of fact succeeded through action in achieving its intent, mere reiteration that the idea was true all the time or it could not have succeeded, does not take us far.

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[7] From *Influence of Darwin on Philosophy and Other Essays*, pp. 142-147.

On the side of things, *reality* is identified with truth; then on the principle that two things that are equal to the same thing are equal to each other, truth as idea and truth as reality are taken to be one and the same thing. Wherever there is an improved or tested idea, an idea which has made good, there is a concrete existence in the way of a completed or harmonized situation. The same activity which proves the idea constructs an inherently satisfied situation out of an inherently dissentient one,—for it is precisely the capacity of the idea as an aim and method of action to determine such transformation that is the criterion of its truth. Now unless all the elements in the situation are held steadily in view, the specific way in which the harmonized reality affords the criterion of truth (namely, through its function of being the last term of a process of active determination) is lost from sight;

and the achieved existence in its merely existent character, apart from its practical or fulfillment character, is treated as The Truth. But when the reality is thus separated from the process by which it is achieved, when it is taken just as given, it is neither truth nor a criterion of truth. It is a state of facts like any other. The achieved telephone is a criterion of the validity of a certain prior idea in so far as it is the fulfillment of activities that embody the nature of that idea, but just as telephone, as a machine actually in existence, it is no more truth nor criterion of truth than is a crack in the wall or a cobble-stone on the street.

The intervening term that mediates and completes the confusion of truth with ideas on one hand and "reality" on the other, is, I think, the fact that ideas after they have been tested in action are employed in the development and grounding of further beliefs. There are cases in which an idea ceases to exist as idea as soon as it is made true; this is so as matter of fact and it is impossible to conceive any reason why it should not be so in point of theory. Such is the case, I take it, with a large part—possibly the major portion—of the ideas that mediate the smaller and transient crises of daily practice. I cannot imagine the situation in which the truth to which I have referred above—the verification of a certain idea about a certain noise—would ever function again as truth—save as I have given it a function in this paper by using it as a corroboration of a certain theory. Such ideas mostly cease, giving way to a matter-of-fact status: say, the perception of the noisy street-car. One at the time may say, "My idea regarding that noise was a true idea"; or one may not even go so far as that, he may just stop with the eventual perception. But the tested idea need not ever recur as a factor of proof in any other problem.

Such, however, is conspicuously not the case with our scientific ideas. In its first value, the idea or hypothesis of gravitation entertained by Newton, stood, when verified, on exactly the same level as the hypothesis regarding the noise in the street. Theoretically, that truth might have been so isolated that its truth character would disappear from thought as soon as a certain factual condition was ascertained. But practically quite the opposite has happened. The idea operates in many other inquiries, and operates no longer as mere idea, but as *proved* idea. Such truths get an "eternal" status—one irrespective of application just now and here, because there are so many nows and heres in which they are useful. Just as to say an idea was true all the time is a way of saying *in retrospect* that it has come out in a certain fashion, so to say that an idea is "eternally true" is to indicate *prospective* modes of application which are indefinitely anticipated. Its meaning, therefore, is strictly pragmatic. It does not indicate a property inherent in the idea as intellectualized existence, but denotes a property of use and employment. Always at hand when needed is a good enough eternal for reasonably minded persons.

INSTRUMENTALISM NOT A THEORY OF MORALS [8]

The nature of truth given by the experimental and functional type of logic is completely a corollary from the nature of thinking and ideas. If the view held as to the latter is understood, the conception of truth follows as a matter of course. If it be not understood, any attempt to present the theory of truth is bound to be confusing, and the theory itself to seem arbitrary and absurd. *If* ideas, meanings, conceptions, notions, theories, systems are instrumental to an active reorganization of the given environment, to a removal of some specific trouble and perplexity, then the test of their validity and value lies in accomplishing this work. If they succeed in their office, they are reliable, sound, valid, good, true. If they fail to clear up confusion, to eliminate defects, if they increase confusion, uncertainty and evil when they are acted upon, then are they false.

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[8] From *Reconstruction in Philosophy*, pp. 155-157; *Creative Intelligence*, pp. 61-64; *The Journal of Philosophy*, Vol. XXI, p. 201; *Experience and Nature*, p. 151.

Confirmation, corroboration, verification lie in works, consequences. Handsome is that handsome does. By their fruits shall ye *know* them. That which guides us truly is true—demonstrated capacity for such guidance is precisely what is meant by truth. The adverb "truly" is more fundamental than either the adjective, true, or the noun, truth. An adverb expresses a way, a mode of acting. Now an idea or conception is a claim or injunction or plan to *act* in a certain way as the way to arrive at the clearing up of a specific situation. When the claim or pretension or plan is acted upon *it guides us truly or falsely;* it leads us to our end or away from it. Its active, dynamic function is the all-important thing about it, and in the quality of activity induced by it lies all its truth and falsity. The hypothesis that works is the *true* one; and *truth* is an abstract noun applied to the collection of cases, actual, foreseen and desired, that receive confirmation in their works and consequences.

So wholly does the worth of this conception of truth depend upon the correctness of the prior account of thinking that it is profitable to consider why the conception gives offence.

Many critics have jumped at the obvious association of the word pragmatic with practical. They have assumed that the intent is to limit all knowledge, philosophic included, to promoting "action," understanding by action either just any bodily movement, or those bodily movements which conduce to the preservation and grosser well-being of the body. James' statement that general conceptions must "cash in" has been taken (especially by European critics) to mean that the end and measure of intelligence lies in the narrow and coarse utilities which it produces. Even an acute American thinker, after first criticizing pragmatism as a kind of idealistic epistemology, goes on to treat it as a doctrine which regards intelligence as a lubricating oil facilitating the workings of the body.

One source of the misunderstanding is suggested by the fact that "cashing in" to James meant that a general idea must always be capable of verification in specific existential cases. The notion of "cashing in" says nothing about the breadth or depth of the specific consequences. As an empirical doctrine, it could not say anything about them in general; the specific cases must speak for themselves. If one conception is verified in terms of eating beefsteak, and another in terms of a favorable credit balance in the bank, that is not because of anything in the theory, but because of the specific nature of the conceptions in question, and because there exist particular events like hunger and trade. If there are also existences in which the most liberal esthetic ideas and the most generous moral conceptions can be verified by specific embodiment, assuredly so much the better.

The fact that a strictly empirical philosophy was taken by so many critics to imply an *a priori* dogma about the kind of consequences capable of existence is evidence, I think, of the inability of many philosophers to think in concretely empirical terms. Since the critics were themselves accustomed to get results by manipulating the concepts of "consequences" and of "practice," they assumed that even a would-be empiricist must be doing the same sort of thing. It will, I suppose, remain for a long time incredible to some that a philosopher should really intend to go to specific experiences to determine of what scope and depth practice admits, and what sort of consequences the world permits to come into being. Concepts are so clear; it takes so little time to develop their implications; experiences are so confused, and it requires so much time and energy to lay hold of them. And yet these same critics charge pragmatism with adopting subjective and emotional standards!

I have been increasingly struck by the fact that interest in strictly logical analysis is rare in comparison with personal, moral, and esthetic interest, and that articles written from the former standpoint are usually criticized from the latter, a fact presenting a certain irony in view of the fact that the critics usually profess a certain disinterested objectivity. Witness criticisms of instrumentalism which ignore the fact that it is a theory about the characteristic object of knowledge as such, and who think they have disposed of it by pointing to "disinterested" knowledge, or to the fact that knowing is enjoyable and worth while for its own sake.

It is characteristic of the inevitable moral prepossession of philosophy, together with the subjective turn of modern thought, that many critics take an "instrumental" theory of knowledge to signify that the value of knowing is instrumental to the knower. This is a matter which is as it may be in particular cases; but certainly in many cases the pursuit of science is sport, carried on, like other sports, for its own satisfaction. But "instrumentalism" is a theory not about personal disposition and satisfaction in knowing, but about the proper objects of science, what is "proper" being defined in terms of physics.

As a matter of fact, the pragmatic theory of intelligence means that the function of mind is to project new and more complex ends—to free experience from routine and from caprice. Not the use of thought to accomplish purposes already given either in the mechanism of the body or in that of the existent state of society, but the use of intelligence to liberate and liberalize action, is the pragmatic lesson. Action restricted to given and fixed ends may attain great technical efficiency; but efficiency is the only quality to which it can lay claim. Such action is mechanical (or becomes so), no matter what the scope of the preformed end, be it the Will of God or *Kultur*. But the doctrine that intelligence develops within the sphere of action for the sake of possibilities not yet given is the opposite of a doctrine of mechanical efficiency. Intelligence *as* intelligence is inherently forward-looking; only by ignoring its primary function does it become a mere means for an end already given. The latter *is* servile, even when the end is labeled moral, religious, or esthetic. But action directed to ends to which the agent has not previously been attached inevitably carries with it a quickened and enlarged spirit. A pragmatic intelligence is a creative intelligence, not a routine mechanic.

CHAPTER EIGHT

INSTRUMENTALISM AND SCIENCE

SOME HISTORICAL CONCEPTIONS OF SCIENCE [1]

In ancient science the essence of science was demonstration; the life blood of modern science is discovery. In the former, reflective inquiry existed for the sake of attaining a stable subject-matter; in the latter systematized knowledge exists in practice for the sake of stimulating, guiding and checking further inquiries. In ancient science, "learning" belonged in the realm of inferior being, of becoming, change; it was transitive, and ceased in the actualization of final and fixed objects. It was thought of after the analogy of master and disciple; the former was already in possession of the truth, and the learner merely appropriated what already is there in the store house of the master. In modern science, learning is finding out what nobody has previously known. It is a transaction in which nature is teacher, and in which the teacher comes to knowledge and truth only through the learning of the inquiring student.

Characteristic differences in logic thus accompany the change from "knowledge" whose subject-matter is final affairs to knowledge dealing with instrumental objects. Where the objects of knowledge are taken to be final, perfect, complete, metaphysical fulfillments of nature, proper method consists in definition and classification; learning closes with demonstration of the rational necessity of definitions and classifications. Demonstration is an exhibition of the everlasting, universal, final and fixed nature of objects. Investigation denoted merely the accumulation of material with which to fill in gaps in an antecedent ready-made hierarchy of species. Discovery was merely the perception that some particular material hitherto unclassified by the learner came under a universal form already known. The universal is already known because given to thought; and the particular is already known, because given to perception; learning merely brings these two given forms into connection, so that what is "discovered" is the subsumption of particular under its universal.

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[1] From *Experience and Nature,* pp. 152-156.

Apart from their theories, or in spite of them, the Greeks were possessed by a lively curiosity, and their practice was better than their logic. In the medieval Christian period, the logic was taken literally. Revelation, scriptures, church fathers and other authentic sources, increased the number of given universal truths, and also of given particular facts and events. The master-teacher was God, who taught not through the dim instrumentality of rational thought alone, but directly through official representatives. The form of apprehension of truth remained the demonstrative syllogism; the store of universal truths was supplemented by the gracious gift of revelation, and the resources of the minor premise extended by divinely established historic facts. Truth was given to reason and faith; and the part of the human mind was to humble itself to hearken, accept and obey.

The scheme was logically complete; it carried out under new circumstances the old idea that the highest end and good of man is knowledge of true Being, and that such knowledge in the degree of its possession effects an assimilation of the mind to the reality known. It added to old theoretical premises such institutions and practices as were practically required to give them effect, so that the humblest of human creatures might at least start on the road to that knowledge the possession of which is salvation and bliss. In comparison, most modern theories are an inconsistent mixture; dialectically the modernist is easy prey to the traditionalist; he carries so many of the conceptions of the latter in his intellectual outfit that he is readily confuted. It is his practice not his theory that gets him ahead. His professed logic is still largely that of antecedent truths, demonstration and certitude; his practice is doubting, forming hypotheses, conducting experiments. When he surrenders antecedent truths of reason it is usually only to accept antecedent truths of sensation. Thus John Stuart Mill conceives of an inductive logic in which certain canons shall bear exactly the same relation to inquiry into fact that the rules of the syllogism bore to classic "deductive" proof or dialectic. He recognizes that science is a matter of inference, but he is as certain as was Aristotle that inference rests upon certain truths which are immediately possessed, differing only about the organ through which they come into our possession.

But in the practice of science, knowledge is an affair of *making* sure, not of grasping antecedently given sureties. What is already known, what is accepted as truth, is of immense importance; inquiry could not proceed a step without it. But it is held subject to use, and is at the mercy of the discoveries which it makes possible. It has to be adjusted to the latter and not the latter to it. When things are defined as instruments, their value and validity reside in what proceeds from them; consequences not antecedents supply meaning and verity. Truths already possessed may have practical or moral certainty, but logically they never lose a hypothetic quality. They are true *if:* if certain other things eventually present themselves; and when these latter things occur they in turn suggest further possibilities; the operation of doubt-inquiry-finding recurs. Although science is concerned in practice with the contingent and its method is that of making hypotheses which are then tried out in actual experimental change of physical conditions, its traditional formulation persists in terms of necessary and fixed objects. Hence all kinds of incoherences occur. The more stubbornly the traditional formulation is clung to, the more serious become these inconsistencies.

Leonardo virtually announced the birth of the method of modern science when he said that true knowledge begins with opinion. The saying involves a revolution; no other statement could be so shocking to the traditional logic. Not that opinion as such is anything more than opinion or an unconfirmed and unwarranted surmise; but that such surmises may be used; when employed as hypotheses they induce experimentation. They then become fore-runners of truth, and mind is released from captivity to antecedent beliefs. Opinion, in the classic conception, was concerned with what was inherently contingent and variable as to possibility and probability, in contrast with knowledge concerned with the inherently necessary and everlasting. It therefore was as ultimate and unquestionable *in its proper sphere* as science was in its place. But opinion as a venture, as an "it seems to me probable," is an occasion of new observations, an instigator of research, an indispensable organ in deliberate discovery. Taken in this fashion, opinion was the source of new histories, the beginning of operations that terminated in new conclusions. Its worth lay neither in itself nor in a peculiar realm of objects to which it was applied, but in the direction of inquiries which it set agoing. It was a starting point, and like any beginning of any history was altered and displaced in the history of which it was the initiation.

THE HISTORICAL STAGES OF SCIENTIFIC DEVELOPMENT [2]

Every scientific inquiry passes historically through at least four stages. (*a*) The first of these stages is, if I may be allowed the bull, that in which scientific inquiry does not take place at all, because no problem or difficulty in the quality of the experience presents itself to provoke reflection. We have only to cast our eye back from the existing status of any science, or back from the status of any particular topic in any science, to discover a time when no reflective or critical thinking busied itself with the matter—when the facts and relations were taken for granted and thus were lost and absorbed in the net meaning which accrued from the experience. (*b*) After the dawning of the problem there comes a period of occupation with relatively crude and unorganized facts—hunting for, locating, and collecting raw material. This is the empiric stage, which no existing science, however proud in its attained rationality, can disavow as its own progenitor. (*c*) Then there is also a speculative stage: a period of guessing, of making hypotheses, of framing ideas which later on are labeled and condemned as only ideas. There is a period of distinction-making and classification-making which later on is regarded as only mentally gymnastic in character. And no science, however proud in its present security of experimental assurance, can disavow a scholastic ancestor. (*d*) Finally, there comes a period of fruitful interaction between the mere ideas and the mere facts: a period when observation is determined by experimental conditions depending upon the use of certain guiding conceptions; when reflection is directed and checked at every point by the use of experimental data, and by the necessity of finding such a form for itself as will enable it to serve in a deduction leading to evolution of new meanings, and ultimately to experimental inquiry which brings to light new facts. In the emerging of a more orderly and significant region of fact, and of a more coherent and self-luminous system of meaning, we have the natural limit of evolution of the logic of a given science.

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[2] From *Essays in Experimental Logic*, pp. 88-90.

ANCIENT EPISTEMOLOGY AND MODERN METAPHYSICS[3]

Why has it been so often assumed in modern philosophy that the advance of physical science has created a serious metaphysical problem; namely, that of the relation of a mechanical world as the object of knowledge to ends; the reconciliation of antithetical worlds of description and appreciation? In empirical fact, the advance of mechanistic science has multiplied and diversified ends; has increased wants and satisfactions, and has multiplied and diversified the means of attaining them. Why the problem? There are two historical empirical reasons to be given in answer. In the first place, the Aristotelian metaphysics of potentiality and actuality, of objects consummatory of natural processes, was intricately entangled with an astronomy and physics which had become incredible. It was also entangled with doctrines and institutions in politics and economics which were fast getting out of relationship to current social needs. The simplest recourse was to treat the classic tradition as the Jonah of science and throw it bodily overboard. The method was imperious and impatient, but it served a need. By a single act it relieved scientific inquiries of notions that were hampering, even paralyzing investigation into nature and that were limiting new practices by outworn sanctions.

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[3] From *Experience and Nature*, pp. 134-135.

By itself alone, however, this cause would hardly have created more than a passing historic episode. The reason that rendered the abandonment of any theory of natural ends something more than a gesture of impatient haste lies in the persistence of the classic theory of knowledge. Greek thought regarded possession, contemplation, as the essence of science, and thought of the latter as such a complete possession of reality as incorporates it with mind. The notion of knowledge as immediate possession of Being was retained when knowing as an actual affair radically altered. Even when science had come to include a method of experimental search and finding, it was still defined as insight into, grasp of, real being as such, in comparison with which other modes of experience are imperfect, confused and perverted. Hence a serious problem. If the proper object of science is a mathematico-mechanical world (as the achievements of science have proved to be the case) and if the object of science defines the true and perfect reality (as the perpetuation of the classic tradition asserted), then how can the objects of love, appreciation—whether sensory or ideal—and devotion be included within true reality?

Efforts to answer this question constitute a large part of the technical content of modern metaphysical thought. Given the premises, its import covers almost everything from the problem of freedom, ideals and ideas to the relation of the physical and the mental. With respect to the latter, there is the causal problem of their existential relation; and there is the cognitive problem of how one order of existence can refer to the other in such a way as to know it. We are not concerned here with the voluminous literature and various (controversial and controverted) points of view that have emerged. It is pertinent, however, to recall the source of the problems; and to register the statement that without the underlying dubious assumption, we are not called upon to find solutions; they cease to be perplexities as soon as certain premises are surrendered.

THE DEVELOPMENT OF MEANINGS AS SCIENTIFIC INSTRUMENTS[4]

That the sciences were born of the arts, the physical sciences of the crafts and technologies of healing, navigation, war and the working of wood, metals, leather, flax and wool; the mental sciences of the arts of political management is, I suppose, an admitted fact. The distinctively intellectual attitude which marks scientific inquiry was generated in efforts at controlling persons and things so that consequences, issues, outcomes would be more stable and assured. The first step away from oppression by immediate things and events was taken when man employed tools and appliances, for manipulating things so as to render them contributory to desired objects. In responding to things not in their immediate qualities but for the sake of ulterior results, immediate qualities are dimmed, while those features which are signs, indices of something else, are distinguished. A thing is more significantly what it makes possible than what it immediately is. The very conception of cognitive meaning, intellectual significance, is that things in their immediacy are subordinated to what they portend and give evidence of. An intellectual sign denotes that a thing is not taken immediately but is referred to something that may come in consequence of it. Intellectual meanings may themselves be appropriated, enjoyed and appreciated; but the character of intellectual meaning is instrumental. Fortunate for us is it that tools and their using can be directly enjoyed; otherwise all work would be drudgery. But this additive fact does not alter the definition of a tool; it remains a thing used as an agency for some concluding event.

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[4] From *Experience and Nature,* pp. 128-129; 131-133; 192; 194-195; 200-202.

The first groping steps in defining spatial and temporal qualities, in transforming purely immediate qualities of local things into generic relationships, were taken through the arts. The finger, the foot, the unit of walking were used to measure space; measurements of weight originated in the arts of commercial exchange and manufacture. Geometry, beginning as agricultural art, further emancipated space from being a localized quality of immediate extensity. But the radically different ways of conceiving geometry found in ancient and in modern science is evidence of the slowness of the process of emancipation of even geometrical forms from direct or esthetic traits. In Greek astronomy the intrinsic qualities of figures always dominated their instrumental significance in inquiry; they were forms to which phenomena had to conform instead of means of indirect measurements. Hardly till our own day did spatial relations get emancipated from esthetic and moral qualities, and become wholly intellectual and relational, abstracted from immediate qualifications, and thereby generalized to their limit.

The net result of the new scientific method was conception of nature as a mathematical-mechanical object. If modern philosophy, reflecting the tendencies of the new science, abolished final causes from nature, it was because concern with qualitative ends, already existing objects of possession and enjoyment, blocked inquiry, discovery and control, and ended in barren dialectical disputes about definitions and classifications. A candid mind can hardly deny that sensory qualities, colors, moist and dry, hard and soft, light and heavy are genuine natural ends. In them the potentialities of the body are brought into functioning, while the activity of the body thus achieved brings in turn to completion potentialities in nature outside of the body. Nevertheless the theory that final objects are the appropriate objects of knowledge, in assimilating knowledge to esthetic contemplation had fatal consequences for science. All natural phenomena had to be known in terms of qualities. Hot and cold, wet and dry, up and down, light and heavy were things to know with and by. They were essential forms, active principles of nature. But Galileo and his scientific and philosophical followers (like Descartes and Hobbes) reversed the method by asserting that these sensory forms are things to be known, challenges to inquiry, problems, not solutions nor terms of solution. The assertion was a general one; it necessitated *search* for objects of knowledge. Dependable material with which to know was found in a different realm of being; in spatial relations, positions, masses, mathematically defined, and in motion as change of space having direction and velocity. Qualities were no longer things to do with; they were things already done, effects, requiring to be known by statement and description in mathematical and mechanical relations. The only world which defines and describes and explains was a world of masses in motion, arranged in a system of Cartesian coördinates.

When we view experimentally this change, what occurs is the kind of thing that happens in the useful arts when natural objects, like crude ores, are treated as materials for getting something else. Their character ceases to lie in their immediate qualities, in just what they are and as directly enjoyed. Their character is now representative; some pure metal, iron, copper, etc., is their essence, which may be extracted as their "true" nature, their "reality." To get at this reality many existent constituents have to be got rid of. From the standpoint of the *object*, pure metal, these things to be eliminated are "false," irrelevant and obstructive. They stand in the way, and in the existent thing those qualities are alone significant which indicate the ulterior objective and which offer means for attaining it.

Modern science represents a generalized recognition and adoption of the point of view of the useful arts, for it proceeds by employment of a similar operative technique of manipulation and reduction. Physical science would be impossible without the appliances and procedures of separation and combinations of the industrial arts. In useful arts, the consequence is increase of power, multiplication of ends appropriated and enjoyed, and an enlarged and varied flexibility and economy in means used to achieve ends. Metal can be put to thousands of uses, while the crude ore can only be beheld for whatever esthetic qualities it happens to present, or be hurled bodily at game or an enemy. Reduction of natural existences to the status of means thus presents nothing inherently adverse to possessed and appreciated ends, but rather renders the latter a more secure and extensive affair.

While classic thought, and its survival in later idealisms, assumed that the ulterior human meanings, meanings of direct association in discourse, are forms of nature apart from their place in discourse, modern thought is given to marking a sharp separation between meanings determined in terms of the causal relationship of things and meanings in terms of human association. Consequently, it treats the latter as negligible or as purely private, not the meanings of natural events at all. It identifies the proximate meanings with the only valid meanings, and abstract relations become an idol. To pass over in science the human meanings of the consequences of natural interactions is legitimate; indeed it is indispensable. To ascertain and state meanings in abstraction from social or shared situations is the only way in which the latter can be intelligently modified, extended and varied. Mathematical symbols have least connection with distinctively human situations and consequences; and the finding of such terms, free from esthetic and moral significance, is a necessary part of the technique. Indeed, such elimination of ulterior meanings supplies perhaps the best possible empirical definition of mathematical relations. They are meanings without direct reference to human behavior. Thus an essence becomes wholly "intellectual" or scientific, devoid of consummatory implication; it expresses the purely instrumental without reference to the objects to which the events in question are instrumental. It then becomes the starting point of reflection that may terminate in ends or consequences in human suffering and enjoyment not previously experienced. Abstraction from any particular consequence (which is the same thing as taking instrumentality generally) opens the way to new uses and consequences.

Meaning, fixed as essence in a term of discourse, may be imaginatively administered and manipulated, experimented with. Just as we overtly manipulate things, making new separations and combinations, thereby introducing things into new contexts and environments, so we bring together logical universals in discourse, where they copulate and breed new meanings. There is nothing surprising in the fact that dialetic (or deduction, as it is termed by moderns) generates new objects; that, in Kantian language, it is "synthetic," instead of merely explicating what is already had. All discourse, oral or written, which is more than a routine unrolling of vocal habits, says things that surprise the one that says them, often indeed more than they surprise any one else. Systematic logical discourse, or ratiocination, is the same sort of thing conducted according to stricter rules. Even under the condition of rigid rules the emergence of new meanings is much more similar to what happens in genial conversation than is conventionally supposed.

Rules of logical order and consistency appertain to economy and efficiency of combination and separation in generating new meanings; not to meanings as such. They are rules of a certain kind of experimentation. In trying new combinations of meanings, satisfactory consequences of new meanings are hit upon; then they may be arranged in a system. The expert in thought is one who has skill in making experiments to introduce an old meaning into different situations and who has a sensitive ear for detecting resultant harmonies and discords. The most "deductive" thought in actual occurrence is a series of trials, observations and selections. In one sense of the ambiguous word intuition, it is a "series of intuitions," and logic is *ex post facto*, expressing a wit that formulates economically the congruities and incongruities that have manifested themselves. Any "syllogism" which is such *ab initio* is performed better by a machine that manipulates symbols automatically than by any "thinker."

There is nothing astonishing in the fact that meanings expressed in symbols are capable of yielding a vast and growing system of mathematics. An essence which is a method of procedure can be linked to other methods of procedure so as to yield new methods; to bring about a revision of old methods, and form a systematic and ordered whole—all without reference to any application of any method to any particular set of concrete existences, and in complete abstraction from any particular consequences which the methods or logical universals are to regulate. For mathematics, they are as much independent objects as is the material with which a zoölogist deals.

Comparison with machines like a self-binding reaper or a telephone system is useful. Machines are evolved in human experience, not prior to it or independently of it. But they are objective and compelling with respect to present particular physical and psychical processes; they are general methods of reaching consequences; they are interactions of previously existing physical existences. Moreover, they depend for their efficacy upon other and independent natural existences; they produce consequences only when used in connection with other existences which limit and test their operation. When machines have attained a certain stage of development, engineers may devote themselves to the construction of new machines and to improvements in old machines without specific reference to concrete uses and applications. That is, inventors are guided by the inherent logic of existing machines, by observation of the consistency of relationships which parts of the machine bear to one another and to the pattern of the entire machine. An invention may thus result from purely mathematical calculations. Nevertheless the machine is still a machine, an instrumental device for regulating interactions with reference to consequences.

When the "concept" of a machine, its meaning or essence embodied in a symbol, deductively generates plans of new machines, essence is fruitful because it was first devised for a purpose. Its subsequent success or failure in fulfilling its purpose, in delivering the desired consequences, together with reflection upon the reason therefore, supply a basis for revising, extending, and modifying the essence in question; thus it has a career and consequence of its own. If we follow the lead of empirically verifiable cases, it would then appear that mathematical and moral essences may be dialectically fruitful, because like other machines they have been constructed for the purpose of securing certain consequences with the minimum of waste and the maximum of economy and efficiency.

THE CHIEF CHARACTERISTICS OF SCIENCE[5]

If objects which are colored, sonorous, tactile, gustatory, loved, hated, enjoyed, admired, which are attractive and repulsive, exciting, indifferent and depressive, in all their infinitely numerous modes, are beginnings and endings of complex natural affairs, and if physical objects (defined as objects of physical science) are constituted by a mathematical-mechanical order; then physical objects instead of involving us in the predicament of having to choose between opposing claimants to reality, have precisely the characters which they should have in order to serve effectively as means for securing and avoiding immediate objects. Four of these characters may be noted.

First, immediate things come and go; events in the way of direct seeing, hearing, touching, liking, enjoying, and the rest of them are in rapid change; the subject-matter of each has a certain uniqueness, unrepeatedness. Spatial-temporal orders, capable of mathematical formulation are, by contrast, constant. They present stability, recurrence at its maximum, raised to the highest degree. Qualitative affairs like red and blue, although in themselves unlike, are subject to comparison in terms of objects of physics; on the basis of connection with orders of sequence, a qualitative spectrum or scale becomes a scheme of numerable variations of a common unit.

The second character of objects of science follows from this feature. The possibility of regulating the occurrence of any event depends upon the possibility of instituting substitutions. By means of the latter, a thing which is within grasp is used to stand for another thing which is not immediately had, or which is beyond control. The technique of equations and other functions characteristic of modern science is, taken generically, a method of thoroughgoing substitutions. It is a system of exchange and mutual conversion carried to its limit.[6] The cognitive result is the homogeneous natural world of modern science, in its contrast with the qualitatively heterogeneous world of ancient science; the latter being made up of things different in inherent kinds and in qualities of movement, such as up and down, lateral and circular, and heterogeneous according to periods of time, such as earlier and later. These become amenable to transformations in virtue of reciprocal substitutions.

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[5] From *Experience and Nature*, pp. 141-146.

In the third place, objects of knowledge as means explain the importance attached to elements, or numerically discrete units. Control of beginnings and ends by means is possible only when the individual, the unique, is treated as a composite of parts, made by sequential differentiations and integrations. In its own integrity an immediate thing just exists as it exists; it stays or it passes; it is enjoyed or suffered. That is all that can be said. But when it is treated as the outcome of a complex convergence or coincidence of a large number of elementary independent variables, points, moments, numerical units, particles of mass and energy or more elementary space-times, (which in spite of their independence are capable of one to one correspondence with one another) the situation changes. The simples or elements are in effect the last pivots upon which regulation of conditions, turns; last, that is to say, as far as present appliances permit.

Preoccupation with elementary units is as marked in logic, biology, and psychology, as in physics and chemistry. Sometimes it seems to have resulted in taking merely dialectical entities for actual unitary elements; but that is not logically necessary. Such an outcome signifies only that the right units were not found. Serious objection holds when the instrumental character of the elements is forgotten; and they are treated as independent, ultimate; when they are treated as metaphysical finalities, insoluble epistemological problems result. Whatever are designated as elements, whether logical, mathematical, physical or mental, depend especially upon the existence of immediate, qualitatively integral objects. Search for elements starts with such empirical objects already possessed. Sensory data, whether they are designated psychic or physical, are thus not starting points; they are the products of analysis.

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[6] The modern mathematical conception of infinity as correspondence of part and whole appears to represent this function in its generalized form.

Denial of the primary reality of immediate empirical objects logically terminates in an abrogation of the reality of elements; for sensory data, or sensa and *sensibilia*, are the residua of analysis of these primary things. Moreover every step of analysis depends upon continual reference to these empirical objects. Drop them from mental view for a moment and any clew in search for elements is lost. Unless macroscopic things are recognized, cells, electrons, logical elements become meaningless. The latter have meaning only as elements *of*. Since, for example, only propositions have implications, a proposition cannot be a mere conjunction of terms; terms having no implications, a proposition so formed would have no significance. Terms must have a significance and since that they have only in a proposition, they depend upon some prior unity. In similar fashion, a purely unitary physical element would have no efficacy; it could not act or be acted upon.

Lastly, the instrumental nature of objects of knowledge accounts for the central position of laws, relations. These are the formulations of the regularities upon which intellectual and other regulation of things as immediate apparitions depends. Variability of elements in mathematical science is specious; elements vary independently of one another, but not independently of a *relation* to others, the relation or law being the constancy among variations. It is a truism that mathematics is the method by which elements can be stated as terms in constant relations, and be subjected to equations and other functions of transformation and substitution. An element is appropriately represented by a mathematical variable; for since any variable falls within some equation, it is treated as a constant function of other variables. The shift from variability to constancy is repeated as often as is needed. It is thus only *pro forma* that the variable is variable. It is not variable in the sense in which unique individualized existences are variable. The inevitable consequence is the subjection of individuals or unique modes of variation to external relations, to laws of uniformity; that is to say, the elimination of individuality. Bear in mind the instrumental nature of the relation of elements, and this abrogation of individuality merely means a temporary neglect—an abstracted gaze—in behalf of attending to conditions under which individualities present themselves. Convert the objects of knowledge into real things by themselves, and individuals become anomalous or unreal; they are not individualized for science but are instances, cases, specimens, of some generical relation or law.

THE CREATIVE NATURE OF SCIENTIFIC DISCOVERY[7]

Sometimes discovery is treated as a proof of the opposite of which it actually shows. It is viewed as evidence that the object of knowledge is already there in full-fledged being and that we just run across it; we uncover it as treasure-hunters find a chest of buried gold. That there is existence antecedent to search and discovery is of course admitted; but it is denied that as such, as other than the conclusion of the historical event of inquiry in its connection with other histories, it is already the object of knowledge. The Norsemen are said to have discovered America. But in what sense? They landed on its shores after a stormy voyage; there was discovery in the sense of hitting upon a land hitherto untrod by Europeans. But unless the newly found and seen object was used to modify old beliefs, to change the sense of the old map of the earth, there was no discovery in any pregnant intellectual sense, any more than mere stumbling over a chair in the dark is discovery till used as basis of inference which connects the stumbling with a body of meanings. Discovery of America involved insertion of the newly touched land in a map of the globe. This insertion, moreover, was not merely additive, but transformative of a prior picture of the world as to its surfaces and their arrangements. It may be replied that it was not the world which was changed but only the map. To which there is the obvious retort that after all the map is part of the world, not something outside it, and that its meaning and bearings are so important that a change in the map involves other and still more important objective changes.

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[7] From *Experience and Nature*, pp. 156-159.

It was not simply states of consciousness or ideas inside the heads of men that were altered when America was actually discovered; the modification was one in the public meaning of the world in which men publicly act. To cut off this meaning from the world is to leave us in a situation where it makes no difference what change takes place in the world; one wave more or less in a puddle is of no account. Changing the meaning of the world effected an existential change. The map of the world is something more than a piece of linen hung on a wall. A new world does not appear without profound transformations in the old one; a discovered America was a factor interacting with Europe and Asia to produce consequences previously impossible. A potential object of further exploration and discoveries now existed in Europe itself; a source of gold; an opportunity for adventure; an outlet for crowded and depressed populations, an abode for exiles and the discounted, an appeal to energy and invention: in short, an agency of new events and fruitions, at home as well as abroad. In some degree, every genuine discovery creates some such transformation of both the meanings and the existences of nature.

Modern idealistic theories of knowledge have displayed some sense of the method and objective of science. They have apprehended the fact that the object of knowledge implies that the found rather than the given is the proper subject matter of science. Recognizing the part played by intelligence in this finding, they have framed a theory of the constitutive operation of mind in the determination of real objects. But idealism, while it has had an intimation of the constructively instrumental office of intelligence, has mistranslated the discovery. Following the old tradition, in its exclusive identification of the object of knowledge with reality, equating truth and Being, it was forced to take the work of thought absolutely and wholesale, instead of relatively and in detail. That is, it took re-constitution to be constitution; reconstruction to be construction. Accepting the premise of the equivalence of Reality with the attained object of knowledge, idealism had no way of noting that thought is intermediary between some empirical objects and others. Hence an office of transformation was converted into an act of original and final creation. A conversion of actual immediate objects into *better*, into more secure and significant objects, was treated as a movement from merely apparent and phenomenal Being to the truly Real. In short, idealism is guilty of neglect that thought and knowledge are histories.

To call action of thought in constituting objects direct is the same as to say that it is miraculous. For it is not thought as idealism defines thought which exercises the reconstructive function. Only action, interaction, can change or remake objects. The analogy of the skilled artist still holds. His intelligence is a factor in forming new objects which mark a fulfillment. But this is because intelligence is incarnate in overt action, using things as means to affect other things. "Thought," reason, intelligence, whatever word we choose to use, is existentially an adjective (or better an adverb), not a noun. It is disposition of activity, a quality of that conduct which foresees consequences of existing events, and which uses what is foreseen as a plan and method of administering affairs.

THE NATURE OF ETERNAL TRUTHS[8]

The criterion of the worth of the idea is the capacity of the idea (as a definition of the end or outcome in terms of what is likely to be serviceable as a method) to operate in fulfilling the object for the sake of which it was projected. Capacity of operation in this fashion is the test, measure, or criterion of truth.

But difficulties overlap; problems recur which resemble each other in the kind of treatment they demand for solution. Various modes of activity with their respective ends, going on at some time more or less independently, get organized into single comprehensive systems of behavior. The solution of one problem is found to create difficulties elsewhere; or the truth that is made in the solution of one problem is found to afford an effective method of dealing with questions arising apparently from unallied sources. Thus certain tested ideas in performing a constant or recurrent function secure a certain permanent status.

The prospective use of such truths, the satisfaction that we anticipate in their employ, the assurance of control that we feel in their possession, becomes relatively much more important than the circumstances under which they were first made true. In becoming permanent resources, such tested ideas get a generalized energy of position. They are truths in general, truths "in themselves" or in the abstract, truths to which positive value is assigned on their own account. Such truths are the "eternal truths" of current discussion. They naturally and properly add to their intellectual and to their practical worth a certain esthetic quality. They are interesting to contemplate, and their contemplation arouses emotions of admiration and reverence. To make these emotions the basis of assigning peculiar inherent sanctity to them apart from their warrant in use, is simply to give way to that mood which in primitive man is the cause of attributing magical efficacy to physical things. Esthetically such truths are more than instrumentalities. But to ignore both the instrumental and the esthetic aspect, and to ascribe values due to an instrumental and esthetic character to some interior and *a priori* constitution of truth is to make fetishes of them.

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[8] From *Influence of Darwin on Philosophy and Other Essays,* pp. 150-153.

We may not exaggerate the permanence and stability of such truths with respect to their recurring and prospective use. It is only relatively that they are unchanging. When applied to new cases, used as resources for coping with new difficulties, the oldest of truths are to some extent remade. Indeed it is only through such application and such remaking that truths retain their freshness and vitality. Otherwise they are relegated to faint reminiscences of an antique tradition. Even the truth that two and two make four has gained a new meaning, has had its truth in some degree remade, in the development of the modern theory of number. If we put ourselves in the attitude of a scientific inquirer in asking what is the meaning of truth *per se*, there spring up before us those ideas which are actively employed in the mastery of new fields, in the organization of new materials. This is the essential difference between truth and dogma; between the living and the dead and decaying. Above all, it is in the region of moral truth that this perception stands out. Moral truths that are not recreated in application to the urgencies of the passing hour, no matter how true in the place and time of their origin, are pernicious and misleading, *i.e.*, false. And it is perhaps through emphasizing this fact, embodied in one form or another in every system of morals and in every religion of moral import, that one most readily realizes the character of truth.

THE NATURE OF SCIENTIFIC JUDGMENTS: THE RELATION OF UNIVERSAL TO PARTICULAR [9]

The proposition that scientific judgments are hypothetic because they are universal is almost commonplace in recent logical theory. There is no doubt that there is a sense in which this proposition states an unquestioned truth. The aim of science is law. A law is adequate in the degree in which it takes the form, if not of an equation, at least of formulation of constancy, of relationship, or order. It is clear that any law, whether stated as formulation or order or as an equation, conveys, in and of itself, not an individualized reality, but a certain connection of conditions. Up to this point there is no dispute. When, however, it is argued that this direct and obvious concern of science with generic statements exhausts the logical significance of scientific method, certain fundamental presuppositions and certain fundamental bearings are ignored; and the logical question at issue is begged. The real question is not whether science aims at statements which take the form of universals, or formulæ of connection of conditions, but how it comes to do so, and what it does with the universal statements after they have been secured.

In other words, we have, first, to ask for the logical import of generic judgments. Accordingly, not questioning the importance of general formulæ as the objective content of the sciences, this section will endeavor to show that such importance lies in the development of "sciences" or bodies of generic formulæ as instrumentalities and methods of controlling individualized judgments.

1. The boast and pride of modern science is its distinctly empirical and experimental character. The term "empirical" refers to origin and development of scientific statements out of concrete experiences; the term "experimental" refers to the testing and checking of the so-called

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[9] From "Logical Conditions of a Scientific Treatment of Morality" in the *University of Chicago Decennial Publications*, First Series, Vol. III, pp. 118-125.

laws and universals by reference to their application in further concrete experience. If this notion of science be correct, it shows, without further argument, that generic propositions occupy a purely intermediate position. They are neither initial nor final. They are the bridges by which we pass over from one particular experience to another; they are individual experiences put into such shape as to be available in regulating other experiences. Otherwise scientific laws would be only intellectual abstractions tested on the basis of their own reciprocal consistencies; and the trait which is supposed to demarcate science from mediæval speculation would at once fade away.

Moreover, if the generic character of propositions of physical and biological sciences were ultimate, such propositions would be entirely useless from a practical point of view; they would be quite incapable of practical application because they would be isolated from intellectual continuity with the particular cases to which application is sought. No amount of purely deductive manipulation of abstractions brings a resulting conclusion any nearer a concrete fact than were the original premises. Deduction introduces in regular sequence new ideas, and thus complicates the universal content. But to suppose that by complicating the content of a universal we get nearer the individual of experience is the fallacy at once of mediæval realism and of the ontological argument for the existence of God. No range of synthesis of universal propositions in chemistry, physics and biology would (if such propositions were logically self-sufficing) assist us in building a bridge or in locating the source of an epidemic of typhoid fever. If, however, universal propositions and their deductive synthesis are to be interpreted in the sense of the manufacturing and employing of intellectual tools for the express purpose of facilitating our individual experiences, the outcome is quite other.

The empirical origin, the experimental test, and the practical use of the statements of science are enough of themselves to indicate the impossibility of holding to any fixed logical division of judgments into universal as scientific, and individual as practical. It suggests that what we term science is just the forging and arranging of instrumentalities for dealing with individual cases of experience—cases which, if individual, are just as unique and irreplaceable as are those of moral life. We might even say that the very fact which leads us upon a superficial view into believing in the logical separation of the generic judgment from the individual, viz., the existence of a large and self-contained body of universal propositions, is proof that as to some individual experiences, we have already worked out methods of regulating our reflective transactions with them, while for another phase of experience this work remains to be done.

The consideration of the technique by which the desired end of control is accomplished does not belong here. It suffices to note that the hypothetic judgment is a most potent instrumentality. If we inhibit the tendency to say, "This *A*, is *B*," and can (1) find ground for saying, "Wherever there is *mn* there is *B*," and can (2) show that wherever there is *op* there is *mn*, and (3) have a technique for discovering the presence of *op* in *A*, we shall have warrant for identifying This, *A*, as *B*, even if all the outward and customary traits are lacking, and even if This, *A*, presents certain traits which, without the mediation of a generic proposition, would have inevitably led us to identify it as *C*. Identification, in other words, is secure only when it can be made through (1) breaking up the analyzed This of naïve judgment into determinate traits, (2) breaking up the predicate into a similar combination of elements, and (3) establishing uniform connection between some of the elements in the subject and some in the predicate. All judgments of everyday life, and indeed all judgments in such sciences as geology, geography, history, zoölogy and botany (all sciences that have to do with historic narration or with description of space coexistences), come back ultimately to questions of identification. Even judgments in physics and chemistry, in their ultimate and concrete form, are concerned with individual cases. Of all the sciences, mathematics alone[10] is concerned with pure general propositions—hence the indispensable significance of mathematics as a tool for all judgments of technology, and of the other sciences. It also is true in all the arts, whether commercial, professional, or artistic, that judgments reduce themselves to matters of correct identification. Observation, diagnosis, interpretation, and expert skill all display themselves in transactions with individual cases as such.

Just as modern logic has seized upon the hypothetic and universal character of scientific statements, relegating their bearing upon individual judgments into the background (but in truth so relegating them only because that bearing is always taken for granted), so modern logic has emphasized the aspect of content in judgment at the expense of the act of judging. I shall now try to show, however, that this emphasis also occurs because reference to act is so thoroughly taken for granted that it is possible to ignore it—that is, fail to give it explicit statement. I shall try to show that every judgment must be regarded as an act; that, indeed, the individual character of judgment proper, which has just been brought out, means, in final analysis, that the judgment is a unique act for which there is no substitute.

Our fundamental point is the control of the content or meaning which is asserted in any given judgment. How can such control be obtained? So far we have spoken as if the content of one judgment might be elaborated simply by reference to the content of another—particularly as if the content of an individual judgment, a judgment of identification, might be secured by reference to the content of a universal or hypothetic proposition. In truth, there is no such thing as control of one content by mere reference to another content as such. To recognize this impossibility is to recognize that the control of the formation of the judgment is always through the medium of an act by which the respective contents of both the individual judgment and of the universal proposition are selected and brought into relationship to each other. There is no road open from any generic formula to an individual judgment. The road leads through the habits and mental attitudes of the one concerned in judging. The universal gets logical force, as well as psychical reality, only in the acts by which it is invented as a tool and then is employed for the purpose for which it was intended.

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[10] If it were necessary for the purpose of this argument, it could of course be shown that reference to individual cases is involved in all mathematics. Within mathematical science, symbols (and diagrams are symbols) are individual objects of just the same logical nature as are metals and acids in chemistry and as are rocks and fossils in geology.

I shall accordingly try to show that activity shows itself at every critical point in the formation of judgment: (a) that it shows itself in the genesis of the generic or universal employed; (b) that it shows itself in the selection of the particular subject-matter which is judged; and (c) that it shows itself in the way in which the validity of the hypothesis is tested and verified, and the significance of the particular subject-matter determined.

(a) So far we have assumed the possibility of building up and selecting for use some generic principle which controls the identification reached in an individual case. We cannot, that is to say, regulate judgments of the type, "This is typhoid," or, "That is Bela's comet" unless we have certain generic concepts, which are defined as connection of particular conditions, and unless we know when and how to select from the stock of such concepts at our disposal the particular one required. The entire science considered as a body of formulæ having coherent relations to one another is just a system of possible predicates—that is, of possible standpoints or methods to be employed in qualifying some particular experience whose nature or meaning is not clear to us. It furnishes us with a set of tools from which choice has to be made.

The choice, of course, depends upon the needs of the particular facts which have to be discriminated and identified in the given case—just as the carpenter decides, on the basis of what he is going to do, whether he will take a hammer, a saw, or a plane from his tool-chest. One might as well suppose that the existence of possible candidates for office, plus the mathematically possible combinations and permutations of them, constitutes an election of one of them to office, as to suppose that a specific judgment follows from an ideally exhaustive system of general principles. The logical process includes, as an organic part of itself, the selection and reference of that particular one of the system which is relevant to the particular case. This individualized selection and adaptation is an integral portion of the logic of the situation. And such selection and adjustment is clearly in the nature of an act.

Nor must we fail to make clear that we are concerned, not with selecting and adapting a ready-made universal, but with the origin of the universal absolutely for the sake of such adaptation. If individual cases in experience never gave us any difficulty in identification, if they never set any problem, universals would simply not exist, to say nothing of being used. The universal is precisely such a statement of experience as will facilitate and guarantee the valuation of individualized experiences. It has no existence, as it has no check of validity, outside of such a function. In some case where science has already made considerable headway, we may, without error, speak as if universals were already at hand, and as if the only question were which one of them to pick out and employ. But such a way of speaking must not blind us to the fact that it was only because of the need of some more objective way of determining a given case that a universal ever originated and took on form and character. Did not the universal develop as medium of conciliation in just the same sort of situation of conflict as that in which it finds use, such use would be absolutely arbitrary, and consequently without logical limit. The activity which selects and employs is logical, not extra-logical, just because the tool selected and employed has been invented and developed precisely for the sake of just such future selection and use.

(b) The individualized act (or choice) in judgments of identification shows itself not only in selection from a body of possibilities of the specific predicate required, but in the determination of the "This," or subject, as well. Students of logic are familiar with the distinction between the fact of particularity and the qualifications or distinguishing traits of a particular—a distinction which has been variously termed one between the "That" and the "What," or between "This" and "Thisness." Thisness refers to a quality which, however sensuous it be (such as hot, red, loud), may yet in its own meaning belong equally well to a large number of particulars. It is something a presentation has, rather than what it just is. Such a variety of applications is involved in the very notion of quality. It makes all qualities capable of consideration as degrees. It is responsible for the ease with which names of qualities transform themselves into abstract terms, blue into blueness, loud into loudness, hot into heat, etc.

The particularity, or better, singularity, of the judgment is constituted by the immediate demonstrative reference of the "This." This demonstrative character means a preferential selection; it is a matter of action. Or, from the psychological side, the sensory quality becomes specific only in motor response. Red, blue, hot, etc., as immediate experiences, always involve motor adjustments which determine them. Change the kind of motor adjustment and the quality of the experience changes; diminish it and the quality relapses more and more into indefinite vagueness. The selection of any particular "This" as the immediate subject of judgment is not arbitrary, however, but is dependent upon the end involved in the interest which is uppermost. Theoretically any object within the range of perception, or any quality or any element of any object, may function as the "This," or the subject-matter to be determined in judgment. Purely objectively, there is no reason for choosing any one of the infinite possibilities rather than another. But the aim in view (which, of course, finds its expression in the predicate of the judgment) gives a basis for deciding what object or what element of any object is logically fit. The implication of selective activity is thus an organic part of the logical operation, and not an arbitrary practical addition clapped on after the logical activity as such is complete. The very same interest which leads to the building up and selection of the universal leads to the constructive selection of the immediate data or material with reference to which the universal is to be employed.

(c) The experimental character of all scientific identification is a commonplace. It is so commonplace that we are apt to overlook its tremendous import—the unconditional necessity, of overt activity to the integrity of the logical process as such. As we have just seen, an act is involved in the determination of both the predicate, or the interpreting meaning, and of the "This," or fact to be identified. Were not both of these acts correlatives in a larger scheme of change of value in experience, they would both be arbitrary; and their ultimate appropriateness or adaptation to each other would be a sheer miracle. If one arbitrary act of choice reached forth to lay hold of some predicate from out the whole system of possible qualifications, while another act of choice, entirely independent in origin, reached out to seize a given area from the whole possible region of sense-perceptions, it would be the sheerest accident if the two selections thus made should fit into each other, should play into each other's hands.

But if one and the same end or interest operates in regulating both selections, the case stands quite otherwise. In such case, the experimental activity of verification is the carrying on of precisely the same purpose which found expression in the choice of subject and predicate respectively. It is in no sense a third process, but is the entire activity which we have already considered in two partial but typical aspects. The choice of meaning or predicate is always made with reference to the individual case to be interpreted; and the constitution of the particular objective case is always colored throughout by the point of view or idea with reference to which it is to be utilized. This reciprocal reference is the check or test continuously employed; and any particular more obvious experimental activity of verification means simply that conditions are such that the checking process is rendered overt.

I have now endeavored to show that if we take scientific judgment in its only ultimate form, viz., that which identifies or discriminates an individualized portion of experience, judgment appears as an act of judging; the act showing itself both in the selection and determination of the subject and the predicate, and in the determination of their values with reference or in respect to each other, and hence in deciding as to truth and validity.

Since in the discussion I have used a terminology which is hardly self-explanatory, and have introduced a variety of statements which to many will appear, in the present state or condition of logical discussion, to need rather than to afford support, I may point out that the force of the argument resides in matters capable of complete empirical confirmation. The truth or falsity of the conclusion reached depends upon these two notions:

First, every judgment is in its concrete reality an act of attention, and, like all attention, involves the function of an interest or end and the deploying of habits and impulsive tendencies (which ultimately involve motor adjustment) in the service of that interest. Hence it involves selection as regards both the object of attention and the standpoint and mode of "apperceiving" or interpreting. Change the interest or end, and the selected material (the subject of the judgment) changes, and the point of view from which it is regarded (and consequently the kind of predication) changes also.

Second, the abstract generalizing propositions of science have developed out of the needs of such individualized judgments or acts of attention; they have assumed their present form—that is, developed their characteristic structures or contents—as instrumentalities for enabling an individual judgment to do its work most effectively; that is to say, to accomplish most surely and economically the end for which it is undertaken. Consequently, the value or validity of such concepts is constantly checked through a use which, by its success and failure, passes upon the competency of general principles, etc., to serve the regulative function for which they are instituted.

PURE SCIENCE AND APPLIED [11]

Knowledge is a word of various meanings. Etymologically, "science" may signify tested and authentic instance of knowledge. But knowledge has also a meaning more liberal and more humane. It signifies events understood, events so discriminately penetrated by thought that mind is literally at home in them. It means comprehension, or inclusive reasonable agreement. What is sometimes termed "applied" science, may then be more truly science than is what is conventionally called pure science. For it is directly concerned with not just instrumentalities, but instrumentalities at work in effecting modifications of existence in behalf of conclusions that are reflectively preferred. Thus conceived the characteristic subject-matter of knowledge consists of fulfilling objects, which as fulfillments are connected with a history to which they give character. Thus conceived, knowledge exists in engineering, medicine and the social arts more adequately than it does in mathematics, and physics. Thus conceived, history and anthropology are scientific in a sense in which bodies of information that stop short with general formulæ are not.

"Application" is a hard word for many to accept. It suggests some extraneous tool ready-made and complete, which is then put to uses that are external to its nature. To call the arts applications of science is then to introduce something foreign to the sciences which the latter irrelevantly and accidentally serve. Since the application is in human use, convenience, enjoyment and improvement, this view of application as something external and arbitrary reflects and strengthens the theories which detach man from nature, which, in the language of philosophy, oppose subject and object. But if we free ourselves from preconceptions, application of "science" means application *in*, not application *to*. Application *in* something signifies a more extensive interaction of natural events with one another, an elimination of distance and obstacles; provision of opportunities for interactions that reveal potentialities previously hidden and that bring into existence new histories with new initiations and endings. Engineering, medicine, social arts realize relationships that were unrealized in actual existences. Surely in their new context the latter are understood or known as they are not in isolation. Prejudice against the abstract, as something remote and technical, is often irrational; but there is sense in the conviction that in the abstract there is something lacking which should be recovered. The serious objection to "applied" science lies in limitation of the application, as to private profit and class advantage.

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[11] From *Experience and Nature*, pp. 161-165.

"Pure" science is of necessity relational and abstract: it fulfills its meaning and gains full truth when included within a course of concrete events. The proposition that "pure" science is non-existential is a tacit admission that only "applied" science is existential. Something else than history and anthropology lose all scientific standing when standards of "purity" are set up as ultimate; namely, all science of existential events. There is superstitious awe reflected in the current estimate of science. If we could free ourselves from a somewhat abject emotion, it would be clear enough that what makes any proposition scientific is its power to yield understanding, insight, intellectual at-homeness, in connection with any existential state of affairs, by filling events with coherent and tested meanings. The case of history is typical and basic. Upon the current view, it is a waste of time to discuss whether there can be such a thing as a science of history. History and science are by definition at opposite poles. And yet if all natural existences *are* histories, divorce between history and the logical mathematical schemes which are the appropriate objects of pure science, terminates in the conclusion that of existences there is no science, no adequate knowledge.

Aside from mathematics, all knowledge is historic; chemistry, geology, physiology, as well as anthropology and those human events to which, arrogantly, we usually restrict the title of history. Only as science is seen to be fulfilled and brought to itself in intelligent management of historical processes in their continuity can man be envisaged as within nature, and not as a supernatural extrapolation. Just because nature is what it is, history is capable of being more truly known—understood, intellectually realized—than are mathematical and physical objects. Do what we can, there always remains something recondite and remote in the latter, until they are restored in the course of affairs from which they have been sequestrated. While the humanizing of science contributes to the life of humanity, it is even more required in behalf of science, in order that it may be intelligible, simple and clear; in order that it may have that correspondence with reality which true knowledge claims for itself.

One can understand the sentiment that animates the bias of scientific inquirers against the idea that all science is ultimately applied. It is justified in the sense in which it is intended; for it is directed against two conceptions which are harmful, but which, also, are irrelevant to the position here taken. One of these conceptions is that the concern or personal motive of the inquirer should be in each particular inquiry some specific practical application. This is just as it happens to be. Doubtless many important scientific discoveries have been thus instigated, but that is an incident of human history rather than of scientific inquiry as such. And upon the whole, or if this animating interest were to become general, the undoubted effect is limitation of inquiry and thereby in the end of the field of application. It marks a recurrence to the dogma of fixed predetermined ends, while emancipation from the influence of this dogma has been the chief service rendered modern scientific methods.

The evil thus effected is increased by the second notion, namely, that application is identical with "commercialized" use. It is an incident of human history, and a rather appalling incident, that applied science has been so largely made an equivalent of use for private and economic class purposes and privileges. When inquiry is narrowed by such motivation or interest, the consequence is in so far disastrous both to science and to human life. But this limitation does not spring from nor attach to the conception of "application" which has been just presented. It springs from defects and perversions of morality as that is embodied in institutions and their effects upon personal disposition. It may be questioned whether the notion that science is pure in the sense of being concerned exclusively with a realm of objects detached from human concerns has not conspired to reinforce this moral deficiency. For in effect it has established another class interest, that of intellectualists and aloof specialists. And it is of the nature of any class-interest to generate and confirm other class-interests, since division and isolation in a world of continuities are always reciprocal. The institution of an interest labelled ideal and idealistic in isolation tends of necessity to evoke and strengthen other interests lacking ideal quality. The genuine interests of "pure" science are served only by broadening the idea of application to include all phases of liberation and enrichment of human experience.

CHAPTER NINE

THE PSYCHOLOGY OF HABIT AND IMPULSE

HABITS ARE FUNCTIONS OF ORGANISM AND ENVIRONMENT [1]

HABITS may be profitably compared to physiological functions, like breathing, digesting. The latter are, to be sure, involuntary, while habits are acquired. But important as is this difference for many purposes it should not conceal the fact that habits are like functions in many respects, and especially in requiring the cooperation of organism and environment. Breathing is an affair of the air as truly as of the lungs; digesting an affair of food as truly as of tissues of stomach. Seeing involves light just as certainly as it does the eye and optic nerve. Walking implicates the ground as well as the legs; speech demands physical air and human companionship and audience as well as vocal organs.

We may shift from the biological to the mathematical use of the word function, and say that natural operations like breathing and digesting, acquired ones like speech and honesty, are functions of the surroundings as truly as of a person. They are things done *by* the environment by means of organic structures or acquired dispositions. The same air that under certain conditions ruffles the pool or wrecks buildings, under other conditions purifies the blood and conveys thought. The outcome depends upon what air acts upon. The social environment acts through native impulses and speech and moral habitudes manifest themselves. There are specific good reasons for the usual attribution of acts to the person from whom they immediately proceed. But to convert this special reference into a belief of exclusive ownership is as misleading as to suppose that breathing and digesting are complete within the human body. To get a rational basis for moral discussion we must begin with recognizing that functions and habits are ways of using and incorporating the environment in which the latter has its say as surely as the former.

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[1] From *Human Nature and Conduct*, pp. 14-15.

We may borrow words from a context less technical than that of biology, and convey the same idea by saying that habits are arts. They involve skill of sensory and motor organs, cunning or craft, and objective materials. They assimilate objective energies, and eventuate in command of environment. They require order, discipline, and manifest technique. They have a beginning, middle and end. Each stage marks progress in dealing with materials and tools, advance in converting material to active use. We should laugh at any one who said that he was master of stone working, but that the art was cooped up within himself and in no wise dependent upon support from objects and assistance from tools.

HABITS ARE FUNDAMENTAL MEANS OF BEHAVIOR [2]

It is a significant fact that in order to appreciate the peculiar place of habit in activity we have to betake ourselves to bad habits, foolish idling, gambling, addiction to liquor and drugs. When we think of such habits, the union of habit with desire and with propulsive power is forced upon us. When we think of habits in terms of walking, playing a musical instrument, typewriting, we are much given to thinking of habits as technical abilities existing apart from our likings and as lacking in urgent impulsion. We think of them as passive tools waiting to be called into action from without. A bad habit suggests an inherent tendency to action and also a hold, command, over us. It makes us do things we are ashamed of, things which we tell ourselves we prefer not to do. It overrides our formal resolutions, our conscious decisions. When we are honest with ourselves we acknowledge that a habit has this power because it is so intimately a part of ourselves. It has a hold upon us because we are the habit.

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[2] From *Human Nature and Conduct*, pp. 24-27; 34-37.

Our self-love, our refusal to face facts, combined perhaps with a sense of a possible better although unrealized self, leads us to eject the habit from the thought of ourselves and conceive it as an evil power which has somehow overcome us. We feed our conceit by recalling that the habit was not deliberately formed; we never intended to become idlers or gamblers or roués. And how can anything be deeply ourselves which developed accidentally, without set intention? These traits of a bad habit are precisely the things which are most instructive about all habits and about ourselves. They teach us that all habits are affections, that all have projectile power, and that a predisposition formed by a number of specific acts is an immensely more intimate and fundamental part of ourselves than are vague, general, conscious choices. All habits are demands for certain kinds of activity; and they constitute the self. In any intelligible sense of the word will they *are* will. They form our effective desires and they furnish us with our working capacities. They rule our thoughts, determining which shall appear and be strong and which shall pass from light into obscurity.

We may think of habits as means, waiting, like tools in a box, to be used by conscious resolve. But they are something more than that. They are active means, means that project themselves, energetic and dominating ways of acting. We need to distinguish between materials or tools and means proper. Nails and boards are not strictly speaking means of a box. They are only materials for making it. Even the saw and hammer are means only when they are employed in some actual making. Otherwise they are tools, or potential means. They are actual means only when brought in conjunction with eye, arm and hand in some specific operation. And eye, arm and hand are, correspondingly, means proper only when they are in active operation. And whenever they are in action they are cooperating with external materials and energies. Without support from beyond themselves the eye stares blankly and the hand moves fumblingly. They are means only when they enter into organization with things which independently accomplish definite results. These organizations are habits.

This fact cuts two ways. Except in a contingent sense, with an "if," neither external materials nor bodily and mental organs are in themselves means. They have to be employed in coordinated conjunction with one another to be actual means, or habits. This statement may seem like the formulation in technical language of a commonplace. But belief in magic has played a large part in human history. And the essence of all hocus-pocus is the supposition that results can be accomplished without the joint adaptation to each other of human powers and physical conditions. A desire for rain may induce men to wave willow branches and to sprinkle water. The reaction is natural and innocent. But men then go on to believe that their act has immediate power to bring rain without the cooperation of intermediate conditions of nature. This is magic; while it may be natural or spontaneous, it is not innocent. It obstructs intelligent study of operative conditions and wastes human desire and effort in futilities.

Belief in magic did not cease when the coarser forms of superstitious practice ceased. The principle of magic is found whenever it is hoped to get results without intelligent control of means; and also when it is supposed that means can exist and yet remain inert and inoperative. In morals and politics such expectations still prevail, and in so far the most important phases of human action are still affected by magic. We think that by feeling strongly enough about something, by wishing hard enough, we can get a desirable result, such as virtuous execution of a good resolve, or peace among nations, or good will in industry. We slur over the necessity of the cooperative action of objective conditions, and the fact that this cooperation is assured only by persistent and close study. Or, on the other hand, we fancy we can get these results by external machinery, by tools or potential means, without a corresponding functioning of human desires and capacities. Often times these two false and contradictory beliefs are combined in the same person. The man who feels that *his* virtues are his own personal accomplishments is likely to be also the one who thinks that by passing laws he can throw the fear of God into others and make them virtuous by edict and prohibitory mandate.

Means are means; they are intermediates, middle terms. To grasp this fact is to have done with the ordinary dualism of means and ends. The "end" is merely a series of acts viewed at a remote stage; and a means is merely the series viewed at an earlier one. The distinction of means and end arises in surveying the *course* of a proposed *line* of action, a connected series in time. The "end" is the last act thought of; the means are the acts to be performed prior to it in time. To *reach* an end we must take our mind off from it and attend to the act which is next to be performed. We must make that the end.

The only exception to this statement is in cases where customary habit determines the course of the series. Then all that is wanted is a cue to set it off. But when the proposed end involves any deviation from usual action, or any rectification of it, then the main thing is to find some act which is different from the usual one. The discovery and performance of this unaccustomed act is the "end" to which we must devote all attention. Otherwise we shall simply do the old thing over again, no matter what is our conscious command. The only way of accomplishing this discovery is through a flank movement. The hard-drinker who keeps thinking of not drinking is doing what he can to initiate the acts which lead to drinking. He is starting with the stimulus to his habit. To succeed he must find some positive interest or line of action which will inhibit the drinking series and which by instituting another course of action will bring him to his desired end. In short, the man's true aim is to discover some course of action, having nothing to do with the habit of drink, which will take him where he wants to go. The discovery of this other series is at once his means and his end. Until one takes intermediate acts seriously enough to treat them as ends, one wastes one's time in any effort at change of habits. Of the intermediate acts, the most important is the *next* one. The first or earliest means is the most important *end* to discover.

Means and ends are two names for the same reality. The terms denote not a division in reality but a distinction in judgment. Without understanding this fact we cannot understand the nature of habits nor can we pass beyond the usual separation of the moral and non-moral in conduct. "End" is a name for a series of acts taken collectively—like the term army. "Means" is a name for the same series taken distributively—like this soldier, that officer. To think of the end signifies to extend and enlarge our view of the act to be performed. It means to look at the next act in perspective, not permitting it to occupy the entire field of vision. To bear the end in mind signifies that we should not stop thinking about our *next* act until we form some reasonably clear idea of the *course* of action to which it commits us. To attain a remote end means on the other hand to treat the end as a series of means. To say that an end is remote or distant, to say in fact that it is an end at all, is equivalent to saying that obstacles intervene between us and it. If, however, it remains a distant end, it becomes a *mere* end, that is a dream. As soon as we have projected it, we must begin to work backward in thought. We must change *what* is to be done into a *how*, the means whereby. The end thus reappears as a series of "what nexts," and the what next of chief importance is the one nearest the present state of the one acting. Only as the end is converted into means is it definitely conceived, or intellectually defined, to say nothing of being executable. Just as end, it is vague, cloudy, impressionistic. We do not *know* what we are really after until a *course* of action is mentally worked out. Aladdin with his lamp could dispense with translating ends into means, but no one else can do so.

Now the thing which is closest to us, the means within our power, is a habit. Some habit impeded by circumstances is the source of the projection of the end. It is also the primary means in its realization. The habit is propulsive and moves anyway toward some end, or result, whether it is projected as an end-in-view or not. The man who can walk does walk; the man who can talk does converse—if only with himself. How is this statement to be reconciled with the fact that we are not always walking and talking; that our habits seem so often to be latent, inoperative? Such inactivity holds only of *overt*, visibly obvious operation. In actuality each habit operates all the time of waking life; though like a member of a crew taking his turn at the wheel, its operation becomes the dominantly characteristic trait of an act only occasionally or rarely.

THE ESSENCE OF HABIT IS NOT REPETITION [3]

The word habit may seem twisted somewhat from its customary use when employed as we have been using it. But we need a word to express that kind of human activity which is influenced by prior activity and is in that sense acquired; which contains within itself a certain ordering or systematization of minor elements of action; which is projective, dynamic in quality, ready for overt manifestation; and which is operative in some subdued subordinate form even when not obviously dominating activity. Habit even in its ordinary usage comes nearer to denoting these facts than any other word. If the facts are recognized we may also use the words attitude and disposition. But unless we have first made clear to ourselves the facts which have been set forth under the name of habit, these words are more likely to be misleading than is the word habit. For the latter conveys explicitly the sense of operativeness, actuality. Attitude and, as ordinarily used, disposition suggests something latent, potential, something which requires a positive stimulus outside themselves to become active. If we perceive that they denote positive forms of action which are released merely through removal of some-counteracting "inhibitory" tendency, and then become overt, we may employ them instead of the word habit to denote subdued, non-patent forms of the latter.

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[3] From *Human Nature and Conduct*, pp. 40-42.

In this case, we must bear in mind that the word disposition means predisposition, readiness to act overtly in a specific fashion whenever opportunity is presented, this opportunity consisting in removal of the pressure due to the dominance of some overt habit; and that attitude means some special case of a predisposition, the disposition waiting as it were to spring through an opened door.

While it is admitted that the word habit has been used in a somewhat broader sense than is usual, we must protest against the tendency in psychological literature to limit its meaning to repetition. This usage is much less in accord with popular usage than is the wider way in which we have used the word. It assumes from the start the identity of habit with routine. Repetition is in no sense the essence of habit. Tendency to repeat acts is an incident of many habits but not of all. A man with the habit of giving way to anger may show his habit by a murderous attack upon some one who has offended. His act is nonetheless due to habit because it occurs only once in his life. The essence of habit is an acquired predisposition to *ways* or modes of response, not to particular acts except as, under special conditions, these express a way of behaving. Habit means special sensitiveness or accessibility to certain classes of stimuli, standing predilections and aversions, rather than bare recurrence of specific acts. It means will.

TWO KINDS OF HABIT: INTELLIGENT AND ROUTINE[4]

All habit involves mechanization. Habit is impossible without setting up a mechanism of action, physiologically engrained, which operates "spontaneously," automatically, whenever the cue is given. But mechanization is not of necessity *all* there is to habit. Consider the conditions under which the first serviceable abilities of life are formed. When a child begins to walk he acutely observes, he intently and intensely experiments. He looks to see what is going to happen and he keeps curious watch on every incident. What others do, the assistance they give, the models they set, operate not as limitations but as encouragements to his own acts, reinforcements of personal perception and endeavor. The first toddling is a romantic adventuring into the unknown; and every gained power is a delightful discovery of one's own powers and of the wonders of the world. We may not be able to retain in adult habits this zest of intelligence and this freshness of satisfaction in newly discovered powers. But there is surely a middle term between a normal exercise of power which includes some excursion into the unknown, and a mechanical activity hedged within a drab world. Even in dealing with inanimate machines we rank that invention higher which adapts its movements to varying conditions.

All life operates through a mechanism, and the higher the form of life the more complex, sure and flexible the mechanism. This fact alone should save us from opposing life and mechanism, thereby reducing the latter to unintelligent automatism and the former to an aimless splurge. How delicate, prompt, sure and varied are the movements of a violin player or an engraver! How unerringly they phrase every shade of emotion and every turn of idea! Mechanism is indispensable. If each act has to be consciously searched for at the moment and intentionally performed, execution is painful and the product is clumsy and halting. Nevertheless the difference between the artist and the mere technician is unmistakable. The artist is a masterful technician. The technique or mechanism is fused with thought and feeling. The "mechanical" performer permits the mechanism to dictate the performance. It is absurd to say that the latter exhibits habit and the former not. We are confronted with two kinds of habit, intelligent and routine. All life has its élan, but only the prevalence of dead habits deflects life into mere élan.

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[4] From *Human Nature and Conduct,* pp. 70-71.

SOCIAL CUSTOM THE MATRIX OF INDIVIDUAL HABITS[5]

We often fancy that institutions, social custom, collective habit, have been formed by the consolidation of individual habits. In the main this supposition is false to fact. To a considerable extent customs, or widespread uniformities or habit, exist because individuals face the same situation and react in like fashion. But to a larger extent customs persist because individuals form their personal habits under conditions set by prior customs. An individual usually acquires the morality as he inherits the speech of his social group. The activities of the group are already there, and some assimilation of his own acts to their pattern is a prerequisite of a share therein, and hence of having any part in what is going on. Each person is born an infant, and every infant is subject from the first breath he draws and the first cry he utters to the attentions and demands of others. These others are not just persons in general with minds in general. They are beings with habits, and beings who upon the whole esteem the habits they have, if for no other reason than that, having them, their imagination is thereby limited.

The nature of habit is to be assertive, insistent, self-perpetuating. There is no miracle in the fact that if a child learns any language he learns the language that those about him speak and teach, especially since his ability to speak that language is a pre-condition of his entering into effective connection with them, making wants known and getting them satisfied. Fond parents and relatives frequently pick up a few of the child's spontaneous modes of speech and for a time at least they are portions of the speech of the group. But the ratio which such words bear to the total vocabulary in use gives a fair measure of the part played by purely individual habit in forming custom in comparison with the part played by custom in forming individual habits. Few persons have either the energy or the wealth to build private roads to travel upon. They find it convenient, "natural," to use the roads that are already there; while unless their private roads connect at some point with the highway they cannot build them even if they would.

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[5] From *Human Nature and Conduct*, pp. 58-63.

These simple facts seem to me to give a simple explanation of matters that are often surrounded with mystery. To talk about the priority of "society" to *the* individual is to indulge in nonsensical metaphysics. But to say that some pre-existent association of human beings is prior to every particular human being who is born into the world is to mention a commonplace. These associations are definite modes of interaction of persons with one another; that is to say they form customs, institutions. There is no problem in all history so artificial as that of how "individuals" manage to form "society." The problem is due to the pleasure taken in manipulating concepts, and discussion goes on because concepts are kept from inconvenient contact with facts. The facts of infancy and sex have only to be called to mind to see how manufactured are the conceptions which enter into this particular problem.

The problem, however, of how those established and more or less deeply grooved systems of interaction which we call social groups, big and small, modify the activities of individuals who perforce are caught-up within them, and how the activities of component individuals remake and redirect previously established customs is a deeply significant one. Viewed from the standpoint of custom and its priority to the formation of habits in human beings who are born babies and gradually grow to maturity, the facts which are now usually assembled under the conceptions of collective minds, group-minds, national-minds, crowd-minds, etc., etc., lose the mysterious air they exhale when mind is thought of (as orthodox psychology teaches us to think of it) as something which precedes action. It is difficult to see that collective mind means anything more than a custom brought at some point to explicit, emphatic consciousness, emotional or intellectual.

Mob psychology comes under the same principles, but in a negative aspect. The crowd and mob express a disintegration of habits which releases impulse and renders persons susceptible to immediate stimuli, rather than such a functioning of habits as is found in the mind of a club or school of thought or a political party. Leaders of an organization, that is of an interaction having settled habits, may, however, in order to put over some schemes deliberately resort to stimuli which will break through the crust of ordinary custom and release impulses on such a scale as to create a mob psychology. Since fear is a normal reaction to the unfamiliar, dread and suspicion are the forces most played upon to accomplish this result, together with vast vague contrary hopes. This is an ordinary technique in excited political campaigns, in starting war, etc. But an assimilation like that of Le Bon of the psychology of democracy to the psychology of a crowd in overriding individual judgment shows lack of psychological insight.

A political democracy exhibits an overriding of thought like that seen in any convention or institution. That is, thought is submerged in habit. In the crowd and mob, it is submerged in undefined emotion. China and Japan exhibit crowd psychology more frequently than do western democratic countries. Not in my judgment because of any essentially Oriental psychology but because of a nearer background of rigid and solid customs conjoined with the phenomena of a period of transition. The introduction of many novel stimuli creates occasions where habits afford no ballast. Hence great waves of emotion easily sweep through masses. Sometimes they are waves of enthusiasm for the new; sometimes of violent reaction against it—both equally undiscriminating. The war has left behind it a somewhat similar situation in western countries.

The family into which one is born is a family in a village or city which interacts with other more or less integrated systems of activity, and which includes a diversity of groupings within itself, say, churches, political parties, clubs, cliques, partnerships, trade-unions, corporations, etc. If we start with the traditional notion of mind as something complete in itself, then we may well be perplexed by the problem of how a common mind, common ways of feeling and believing and purposing, comes into existence and then forms these groups. The case is quite otherwise if we recognize that in any case we must start with grouped action, that is, with some fairly settled system of interaction among individuals. The problem of origin and development of the various groupings, or definite customs, in existence at any particular time in any particular place is not solved by reference to psychic causes, elements, forces. It is to be solved by reference to facts of action, demand for food, for houses, for a mate, for some one to talk to and to listen to one talk, for control of others, demands which are all intensified by the fact already mentioned that each person begins a helpless, dependent creature. I do not mean of course that hunger, fear, sexual love, gregariousness, sympathy, parental love, love of bossing and of being ordered about, imitation, etc., play no part. But I do mean that these words do not express elements or forces which are psychic or mental in their first intention. They denote *ways of behavior*. These ways of behaving involve interaction, that is to say, and prior groupings. And to understand the existence of organized ways or habits we surely need to go to physics, chemistry and physiology rather than to psychology.

There is doubtless a great mystery as to why any such thing as being conscious should exist at all. But *if* consciousness exists at all, there is no mystery in its being connected with what it is connected with. That is to say, if an activity which is an interaction of various factors, or a grouped activity, comes to consciousness it seems natural that it should take the form of an emotion, belief or purpose that reflects the interaction, that it should be an "our" consciousness or a "my" consciousness. And by this is meant both that it will be shared by those who are implicated in the associative custom, or more or less alike in them all, and that it will be felt or thought to concern others as well as one's self. A family-custom or organized habit of action comes into contact and conflict for example with that of some other family. The emotions of ruffled pride, the belief about superiority or being "as good as other people," the intention to hold one's own are naturally *our* feeling and idea of *our* treatment and position. Substitute the Republican party or the American nation for the family and the general situation remains the same.

The conditions which determine the nature and extent of the particular grouping in question are matters of supreme import. But they are not as such subject-matter of psychology, but of the history of politics, law, religion, economics, invention, the technology of communication and intercourse. Psychology comes in as an indispensable tool. But it enters into the matter of understanding these various special topics, not into the question of what psychic forces form a collective mind and therefore a social group. That way of stating the case puts the cart a long way before the horse, and naturally gathers obscurities and mysteries to itself. In short, the primary facts of social psychology center about collective habit, custom. In addition to the general psychology of habit—which *is* general not individual in any intelligible sense of that word—we need to find out just how different customs shape the desires, beliefs, purposes of those who are affected by them. The problem of social psychology is not how either individual or collective mind forms social groups and customs, but how different customs, established interacting arrangements, form and nurture different minds.

CHARACTER THE INTERPENETRATION OF HABITS[6]

The habit of walking is expressed in what a man sees when he keeps still, even in dreams. The recognition of distances and directions of things from his place at rest is the obvious proof of this statement. The habit of locomotion is latent in the sense that it is covered up, counteracted, by a habit of seeing which is definitely at the fore. But counteraction is not suppression. Locomotion is a potential energy, not in any metaphysical sense, but in the physical sense in which potential energy as well as kinetic has to be taken account of in any scientific description. Everything that a man who has the habit of locomotion does and thinks, he does and thinks differently on that account. This fact is recognized in current psychology, but is falsified into an association of sensations.

Were it not for the continued operation of all habits in every act, no such thing as character could exist. There would be simply a bundle, an untied bundle at that, of isolated acts. Character is the interpenetration of habits. If each habit existed in an insulated compartment and operated without affecting or being affected by others, character would not exist. That is, conduct would lack unity, being only a juxtaposition of disconnected reactions to separated situations. But since environments overlap, since situations are continuous and those remote from one another contain like elements, a continuous modification of habits by one another is constantly going on.

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[6] From *Human Nature and Conduct*, pp. 38-39; 43.

A man may give himself away in a look or a gesture. Character can be read through the medium of individual acts.

Of course interpenetration is never total. It is most marked in what we call strong characters. Integration is an achievement rather than a datum. A weak, unstable, vacillating character is one in which different habits alternate with one another rather than embody one another. The strength, solidity of a habit is not its own possession but is due to reinforcement by the force of other habits which it absorbs into itself. Routine specialization always works against interpenetration. Men with "pigeon-hole" minds are not infrequent. Their diverse standards and methods of judgment for scientific, religious, political matters testify to isolated compartmental habits of action. Character that is unable to undergo successfully the strain of thought and effort required to bring competing tendencies into a unity, builds up barriers between different systems of likes and dislikes. The emotional stress incident to conflict is avoided not by readjustment but by effort at confinement. Yet the exception proves the rule. Such persons are successful in keeping different ways of reacting apart from one another in consciousness rather than in action. Their character is marked by stigmata resulting from this division.

The dynamic force of habit taken in connection with the continuity of habits with one another explains the unity of character and conduct, or speaking more concretely of motive and act, will and deed. Moral theories have frequently separated these things from each other. One type of theory, for example, has asserted that only will, disposition, motive counts morally; that acts are external, physical, accidental; that moral good is different from goodness in act since the latter is measured by consequences, while moral good or virtue is intrinsic, complete in itself, a jewel shining by its own light—a somewhat dangerous metaphor however. The other type of theory has asserted that such a view is equivalent to saying that all that is necessary to be virtuous is to cultivate states of feeling; that a premium is put on disregard of the actual consequences of conduct, and agents are deprived of any objective criterion for the rightness and wrongness of acts, being thrown back on their own whims, prejudices and private peculiarities. Like most opposite extremes in philosophic theories, the two theories suffer from a common mistake. Both of them ignore the projective force of habit and the implication of habits in one another. Hence they separate a unified deed into two disjoined parts, an inner called motive and an outer called act.

IMPULSES ARE SECONDARY IN BEHAVIOR [7]

Habits as organized activities are secondary and acquired, not native and original. They are outgrowths of unlearned activities which are part of man's endowment at birth. The order of topics followed in our discussion may accordingly be questioned. Why should what is derived and therefore in some sense artificial in conduct be discussed before what is primitive, natural and inevitable? Why did we not set out with an examination of those instinctive activities upon which the acquisition of habits is conditioned?

The query is a natural one, yet it tempts to flinging forth a paradox. In conduct the acquired is the primitive. Impulses although first in time are never primary in fact; they are secondary and dependent. The seeming paradox in statement covers a familiar fact. In the life of the individual, instinctive activity comes first. But an individual begins life as a baby, and babies are dependent beings. Their activities could continue at most for only a few hours were it not for the presence and aid of adults with their formed habits. And babies owe to adults more than procreation, more than the continued food and protection which preserve life. They owe to adults the opportunity to express their native activities in ways which have meaning. Even if by some miracle original activity could continue without assistance from the organized skill and art of adults, it would not amount to anything. It would be mere sound and fury.

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[7] From *Human Nature and Conduct*, pp. 89-91.

In short, the *meaning* of native activities is not native; it is acquired. It depends upon interaction with a matured social medium. In the case of a tiger or eagle, anger may be identified with a serviceable life-activity, with attack and defense. With a human being it is as meaningless as a gust of wind on a mudpuddle apart from a direction given it by the presence of other persons, apart from the responses they make to it. It is a physical spasm, a blind dispersive burst of wasteful energy. It gets quality, significance, when it becomes a smouldering sullenness, an annoying interruption, a peevish irritation, a murderous revenge, a blazing indignation. And although these phenomena which have a meaning spring from original native reactions to stimuli, yet they depend also upon the responsive behavior of others. They and all similar human displays of anger are not pure impulses; they are habits formed under the influence of association with others who have habits already and who show their habits in the treatment which converts a blind physical discharge into a significant anger.

After ignoring impulses for a long time in behalf of sensations, modern psychology now tends to start out with an inventory and description of instinctive activities. This is an undoubted improvement. But when it tries to explain complicated events in personal and social life by direct reference to these native powers, the explanation becomes hazy and forced. It is like saying the flea and the elephant, the lichen and the redwood, the timid hare and the ravening wolf, the plant with the most inconspicuous blossom and the plant with the most glaring color are alike products of natural selection. There may be a sense in which the statement is true; but till we know the specific environing conditions under which selection took place we really know nothing. And so we need to know about the social conditions which have educated original activities into definite and significant dispositions before we can discuss the psychological element in society. This is the true meaning of social psychology.

At some place on the globe, at some time, every kind of practice seems to have been tolerated or even praised. How is the tremendous diversity of institutions (including moral codes) to be accounted for? The native stock of instincts is practically the same everywhere. Exaggerate as much as we like the native differences of Patagonians and Greeks, Sioux Indians and Hindoos, Bushmen and Chinese, their original differences will bear no comparison to the amount of difference found in custom and culture. Since such a diversity cannot be attributed to an original identity, the development of native impulse must be stated in terms of acquired habits, not the growth of customs in terms of instincts.

IMPULSES ARE PIVOTAL IN RECONSTRUCTING HABITS[8]

The wholesale human sacrifices of Peru and the tenderness of St. Francis, the cruelties of pirates and the philanthropies of Howard, the practice of Suttee and the cult of the Virgin, the war and peace dances of the Comanches and the parliamentary institutions of the British, the communism of the South Sea islander and the proprietary thrift of the Yankee, the magic of the medicine man and the experiments of the chemist in his laboratory, the non-resistance of Chinese and the aggressive militarism of an imperial Prussia, monarchy by divine right and government by the people; the countless diversity of habits suggested by such a random list springs from practically the same capital-stock of native instincts.

It would be pleasant if we could pick and choose those institutions which we like and impute them to human nature, and the rest to some devil; or those we like to our kind of human nature, and those we dislike to the nature of despised foreigners on the ground they are not really "native" at all. It would appear to be simpler if we could point to certain customs, saying that they are the unalloyed products of certain instincts, while those other social arrangements are to be attributed wholly to other impulses. But such methods are not feasible. The same original fears, angers, loves and hates are hopelessly entangled in the most opposite institutions. The thing we need to know is how a native stock has been modified by interaction with different environments.

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[8] From *Human Nature and Conduct,* pp. 92-94.

Yet it goes without saying that original, unlearned activity has its distinctive place and that an important one in conduct. Impulses are the pivots upon which the reorganization of activities turn, they are agencies of deviation, for giving new directions to old habits and changing their quality. Consequently whenever we are concerned with understanding social transition and flux or with projects for reform, personal and collective, our study must go to analysis of native tendencies. Interest in progress and reform is, indeed, the reason for the present great development of scientific interest in primitive human nature. If we inquire why men were so long blind to the existence of powerful and varied instincts in human beings, the answer seems to be found in the lack of a conception of orderly progress. It is fast becoming incredible that psychologists disputed as to whether they should choose between innate ideas and an empty, passive, wax-like mind. For it seems as if a glance at a child would have revealed that the truth lay in neither doctrine, so obvious is the surging of specific native activities. But this obtuseness to facts was evidence of lack of interest in what could be done with impulses, due, in turn, to lack of interest in modifying existing institutions. It is no accident that men became interested in the psychology of savages and babies when they became interested in doing away with old institutions.

A combination of traditional individualism with the recent interest in progress explains why the discovery of the scope and force of instincts has led many psychologists to think of them as the fountain head of all conduct, as occupying a place before instead of after that of habits. The orthodox tradition in psychology is built upon isolation of individuals from their surroundings. The soul or mind or consciousness was thought of as self-contained and self-enclosed. Now in the career of an individual if it is regarded as complete in itself instincts clearly come before habits. Generalize this individualistic view, and we have an assumption that all customs, all significant episodes in the life of individuals can be carried directly back to the operation of instincts.

But, as we have already noted, if an individual be isolated in this fashion, along with the fact of primacy of instinct we find also the fact of death. The inchoate and scattered impulses of an infant do not coordinate into serviceable powers except through social dependencies and companionships. His impulses are merely starting points for assimilation of the knowledge and skill of the more matured beings upon whom he depends. They are tentacles sent out to gather that nutrition from customs which will in time render the infant capable of independent action. They are agencies for transfer of existing social power into personal ability; they are means of reconstructive growth. Abandon an impossible individualistic psychology, and we arrive at the fact that native activities are organs of re-organization and re-adjustment. The hen precedes the egg. But nevertheless this particular egg may be so treated as to modify the future type of hen.

THE THREE MODES OF EXPRESSION OF IMPULSE[9]

Any activity is original when it first occurs. As conditions are continually changing, new and *primitive* activities are continually occurring. The traditional psychology of instincts obscures recognition of this fact. It sets up a hard-and-fast preordained class under which specific acts are subsumed, so that their own quality and originality are lost from view. This is why the novelist and dramatist are so much more illuminating as well as more interesting commentators on conduct than the schematizing psychologist. The artist makes perceptible individual responses and thus displays a new phase of human nature evoked in new situations. In putting the case visibly and dramatically he reveals vital actualities. The scientific systematizer treats each act as merely another sample of some old principle, or as a mechanical combination of elements drawn from a ready-made inventory.

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[9] From *Human Nature and Conduct*, pp. 155-159; 164-166.

When we recognize the diversity of native activities and the varied ways in which they are modified through interactions with one another in response to different conditions, we are able to understand moral phenomena otherwise baffling. In the career of any impulse activity there are speaking generally three possibilities. It may find a surging, explosive discharge—blind, unintelligent. It may be sublimated—that is, become a factor coordinated intelligently with others in a continuing course of action. Thus a gust of anger may, because of its dynamic incorporation into disposition, be converted into an abiding conviction of social injustice to be remedied, and furnish the dynamic to carry the conviction into execution. Or an excitation of sexual attraction may reappear in art or in tranquil domestic attachments and services. Such an outcome represents the normal or desirable functioning of impulse; in which, to use our previous language, the impulse operates as a pivot, or reorganization of habit. Or again a released impulsive activity may be neither immediately expressed in isolated spasmodic action, nor indirectly employed in an enduring interest. It may be "suppressed."

Suppression is not annihilation. "Psychic" energy is no more capable of being abolished than the forms we recognize as physical. If it is neither exploded nor converted, it is turned inwards, to lead a surreptitious, subterranean life. An isolated or spasmodic manifestation is a sign of immaturity, crudity, savagery; a suppressed activity is the cause of all kinds of intellectual and moral pathology. One form of the resulting pathology constitutes "reaction" in the sense in which the historian speaks of reactions. A conventionally familiar instance is Stuart license after Puritan restraint. A striking modern instance is the orgy of extravagance following upon the enforced economies and hardships of war, the moral letdown after its highstrung exalted idealisms, the deliberate carelessness after an attention too intense and too narrow. Outward manifestation of many normal activities had been suppressed. But activities were not suppressed. They were merely dammed up awaiting their chance.

Now such "reactions" are simultaneous as well as successive. Resort to artificial stimulation, to alcoholic excess, sexual debauchery, opium and narcotics are examples. Impulses and interests that are not manifested in the regular course of serviceable activity or in recreation demand and secure a special manifestation. And it is interesting to note that there are two opposite forms. Some phenomena are characteristic of persons engaged in a routine monotonous life of toil attended with fatigue and hardship. And others are found in persons who are intellectual and executive, men whose activities are anything but monotonous, but are narrowed through overspecialization. Such men think too much, that is, too much along a *particular* line. They carry too heavy responsibilities; that is, their offices of service are not adequately shared with others. They seek relief by escape into a more sociable and easy-going world. The imperative demand for companionship not satisfied in ordinary activity is met by convivial indulgence. The other class has recourse to excess because its members have in ordinary occupations next to no opportunity for imagination. They make a foray into a more highly colored world as a substitute for a normal exercise of invention, planning and judgment. Having no regular responsibilities, they seek to recover an illusion of potency and of social recognition by an artificial exaltation of their submerged and humiliated selves.

Hence the love of pleasure against which moralists issue so many warnings. Not that love of pleasures is in itself in any way demoralizing. Love of the pleasures of cheerfulness, of companionship is one of the steadying influences in conduct. But pleasure has often become identified with special thrills, excitations, tickling of sense, stirrings of appetite for the express purpose of enjoying the immediate stimulation irrespective of results. Such pleasures are signs of dissipation, dissoluteness, in the literal sense. An activity which is deprived of regular stimulation and normal function is piqued into isolated activity, and the result is division, disassociation. A life of routine and of over-specialization in non-routine lines seek occasions in which to arouse by abnormal means a *feeling* of satisfaction without any accompanying objective fulfilment. Hence, as moralists have pointed out, the insatiable character of such appetites. Activities are not really satisfied, that is fulfilled in objects. They continue to seek for gratification in more intensified stimulations. Orgies of pleasure-seeking, varying from saturnalia to mild sprees, result.

The development of mental pathologies to the point where they need clinical attention has of late enforced a widespread consciousness of some of the evils of suppression of impulse. The studies of psychiatrists have made clear that impulses driven into pockets distil poison and produce festering sores. An organization of impulse into a working habit forms an interest. A surreptitious furtive organization which does not articulate in avowed expression forms a "complex." Current clinical psychology has undoubtedly overworked the influence of sexual impulse in this connection, refusing at the hands of some writers to recognize the operation of any other modes of disturbance. There are explanations of this onesidedness. The intensity of the sexual instinct and its organic ramifications produce many of the cases that are so noticeable as to demand the attention of physicians. And social taboos and the tradition of secrecy have put this impulse under greater strain than has been imposed upon others. If a society existed in which the existence of impulse toward food were socially disavowed until it was compelled to live an illicit, covert life, alienists would have plenty of cases of mental and moral disturbance to relate in connection with hunger.

The significant thing is that the pathology arising from the sex instinct affords a striking case of a universal principle. Every impulse is, as far as it goes, force, urgency. It must either be used in some function, direct or sublimated, or be driven into a concealed, hidden activity. It has long been asserted on empirical grounds that expression and enslavement result in corruption and perversion. We have at last discovered the reason for this fact. The wholesome and saving force of intellectual freedom, open confrontation, publicity, now has the stamp of scientific sanction. The evil of checking impulses is not that they are checked. Without inhibition there is no instigation of imagination, no redirection into more discriminated and comprehensive activities. The evil resides in a refusal of direct attention which forces the impulse into disguise and concealment, until it enacts its own unavowed uneasy private life subject to no inspection and no control.

A rebellious disposition is also a form of romanticism. At least rebels set out as romantics, or, in popular parlance, as idealists. There is no bitterness like that of conscious impotency, the sense of suffocatingly complete suppression. The world is hopeless to one without hope. The rage of total despair is a vain effort at blind destructiveness. Partial suppression induces in some natures a picture of complete freedom, while it arouses a destructive protest against existing institutions as enemies that stand in the way of freedom. Rebellion has at least one advantage over recourse to artificial stimulation and to subconscious nursings of festering sore spots. It engages in action and thereby comes in contact with realities. It contains the possibility of learning something. Yet learning by this method is immensely expensive. The costs are incalculable. As Napoleon said, every revolution moves in a vicious circle. It begins and ends in excess.

THE FALLACIES OF INSTINCT-PSYCHOLOGY [10]

In spite of what has been said, it will be asserted that there are definite, independent, original instincts which manifest themselves in specific acts in a one-to-one correspondence. Fear, it will be said, is a reality, and so is anger, and rivalry, and love of mastery of others, and self-abasement, maternal love, sexual desire, gregariousness and envy, and each has its own appropriate deed as a result. Of course they are realities. So are suction, rusting of metals, thunder and lightning and lighter-than-air flying machines. But science and invention did not get on as long as men indulged in the notion of special forces to account for such phenomena. Men tried that road, and it only led them into learned ignorance. They spoke of nature's abhorrence of a vacuum; of a force of combustion; of intrinsic nisus toward this and that; of heaviness and levity as forces. It turned out that these "forces" were only the phenomena over again, translated from a specific and concrete form (in which they were at least actual) into a generalized form in which they were verbal. They converted a problem into a solution which afforded a simulated satisfaction.

Advance in insight and control came only when the mind turned squarely around. After it had dawned upon inquirers that their alleged causal forces were only names which condensed into a duplicate form a variety of complex occurrences, they set about breaking up phenomena into minute detail and searching for correlations, that is, for elements in other gross phenomena which also varied. Correspondence of variations of elements took the place of large and imposing forces. The psychology of behavior is only beginning to undergo similar treatment. It is probable that the vogue of sensation-psychology was due to the fact that it seemed to promise a similar detailed treatment of personal phenomena. But as yet we tend to regard sex, hunger, fear, and even much more complex active interests as if they were lump forces, like the combustion or gravity of old-fashioned physical science.

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[10] From *Human Nature and Conduct*, pp. 149-155.

It is not hard to see how the notion of a single and separate tendency grew up in the case of simpler acts like hunger and sex. The paths of motor outlet or discharge are comparatively few and are fairly well defined. Specific bodily organs are conspicuously involved. Hence there is suggested the notion of a correspondingly separate psychic force or impulse. There are two fallacies in this assumption. The first consists in ignoring the fact that no activity (even one that is limited by routine habit) is confined to the channel which is most flagrantly involved in its execution. The whole organism is concerned in every act to some extent and in some fashion, internal organs as well as muscular, those of circulation, secretion, etc. Since the total state of the organism is never exactly twice alike, in so far the phenomena of hunger and sex are never twice the same in fact. The difference may be negligible for some purposes, and yet give the key for the purposes of a psychological analysis which shall terminate in a correct judgment of value. Even physiologically the context of organic changes accompanying an act of hunger or sex makes the difference between a normal and a morbid phenomenon.

In the second place, the environment in which the act takes place is never twice alike. Even when the overt organic discharge is substantially the same, the acts impinge upon a different environment and thus have different consequences. It is impossible to regard these differences of objective result as indifferent to the quality of the acts. They are immediately sensed if not clearly perceived; and they are the only *components of the meaning* of the act. When feelings, dwelling antecedently in the soul, were supposed to be the causes of acts, it was natural to suppose that each psychic element had its own inherent quality which might be directly read off by introspection. But when we surrender this notion, it becomes evident that the only way of telling what an organic act is like is by the sensed or perceptible changes which it occasions. Some of these will be intra-organic, and (as just indicated) they will vary with every act. Others will be external to the organism, and these consequences are more important than the intra-organic ones for determining the quality of the act. For they are consequences in which others are concerned and which evoke reactions of favor and disfavor as well as cooperative and resisting activities of a more indirect sort.

Most so-called self-deception is due to employing immediate organic states as criteria of the value of an act. To say that it feels good or yields direct satisfaction is to say that it gives rise to a comfortable internal state. The judgment based upon this experience may be entirely different from the judgment passed by others upon the basis of its objective or social consequences. As a matter of even the most rudimentary precaution, therefore, every person learns to recognize to some extent the quality of an act on the basis of its consequences in the acts of others. But even without this judgment, the exterior changes produced by an act are immediately sensed, and being associated with the act become a part of its quality. Even a young child sees the smash of things occasionally by his anger, and the smash may compete with his satisfied feeling of discharged energy as an index of value.

A child gives way to what, grossly speaking, we call anger. Its felt or appreciated quality depends in the first place upon the condition of his organism at the time, and this is never twice alike. In the second place, the act is at once modified by the environment upon which it impinges so that different consequences are immediately reflected back to the doer. In one case, anger is directed say at older and stronger playmates who immediately avenge themselves upon the offender, perhaps cruelly. In another case, it takes effect upon weaker and impotent children, and the reflected appreciated consequence is one of achievement, victory, power and a knowledge of the means of having one's own way. The notion that anger still remains a single force is a lazy mythology. Even in the cases of hunger and sex, where the channels of action are fairly demarcated by antecedent conditions (or "nature"), the actual content and feel of hunger and sex, are indefinitely varied according to their social contexts. Only when a man is starving, is hunger an unqualified natural impulse; as it approaches this limit, it tends to lose, moreover, its psychological distinctiveness and to become a raven of the entire organism.

The treatment of sex by psycho-analysts is most instructive, for it flagrantly exhibits both the consequences of artificial simplification and the transformation of social results into psychic causes. Writers, usually male, hold forth on the psychology of woman, as if they were dealing with a Platonic universal entity, although they habitually treat men as individuals, varying with structure and environment. They treat phenomena which are peculiarly symptoms of the civilization of the West at the present time as if they were the necessary effects of fixed native impulses of human nature. Romantic love as it exists today, with all the varying perturbations it occasions, is as definitely a sign of specific historic conditions as are big battle ships with turbines, internal-combustion engines, and electrically driven machines. It would be as sensible to treat the latter as effects of a single psychic cause as to attribute the phenomena of disturbance and conflict which accompany present sexual relations as manifestations of an original single psychic force or *Libido*.

Upon this point at least a Marxian simplification is nearer the truth than that of Jung.

Again it is customary to suppose that there is a single instinct of fear, or at most a few well-defined sub-species of it. In reality, when one is afraid the whole being reacts, and this entire responding organism is never twice the same. In fact, also, every reaction takes place in a different environment, and its meaning is never twice alike, since the difference in environment makes a difference in consequences. It is only mythology which sets up a single, identical psychic force which "causes" all the reactions of fear, a force beginning and ending in itself. It is true enough that in all cases we are able to identify certain more or less separable characteristic acts—muscular contractions, withdrawals, evasions, concealments. But in the latter words we have already brought in an environment. Such terms as withdrawal and concealment have no meaning except as attitudes toward objects. There is no such thing as an environment in general; there are specific changing objects and events. Hence the kind of evasion or running away or shrinking up which takes place is directly correlated with specific surrounding conditions. There is no one fear having diverse manifestations; there are as many qualitatively different fears as there are objects responded to and different consequences sensed and observed.

Fear of the dark is different from fear of publicity, fear of the dentist from fear of ghosts, fear of conspicuous success from fear of humiliation, fear of a bat from fear of a bear. Cowardice, embarrassment, caution and reverence may all be regarded as forms of fear. They all have certain physical organic acts in common—those of organic shrinkage, gestures of hesitation and retreat. But each is qualitatively unique. Each is what it is in virtue of its total interactions or correlations with other acts and with the environing medium, with consequences. High explosives and the aeroplane have brought into being something new in conduct. There is no error in calling it fear. But there is error, even from a limited clinical standpoint, in permitting the classifying name to blot from view the difference between fear of bombs dropped from the sky and the fears which previously existed. The new fear is just as much and just as little original and native as a child's fear of a stranger.

CHAPTER TEN

INTELLIGENCE IN HUMAN BEHAVIOR

INTELLIGENCE AND HABIT[1]

In discussing habit and impulse we have repeatedly met topics where reference to the work of thought was imperative. Explicit consideration of the place and office of intelligence in conduct can hardly begin otherwise than by gathering together these incidental references and reaffirming their significance. The stimulation of reflective imagination by impulse, its dependence upon established habits, and its effect in transforming habit and regulating impulse forms, accordingly, our first theme.

Habits are conditions of intellectual efficiency. They operate in two ways upon intellect. Obviously, they restrict its reach, they fix its boundaries. They are blinders that confine the eyes of mind to the road ahead. They prevent thought from straying away from its imminent occupation to a landscape more varied and picturesque but irrelevant to practice. Outside the scope of habits, thought works gropingly, fumbling in confused uncertainty; and yet habit made complete in routine shuts in thought so effectually that it is no longer needed or possible. The routineer's road is a ditch out of which he cannot get, whose sides enclose him, directing his course so thoroughly that he no longer thinks of his path or his destination. All habit-forming involves the beginning of an intellectual specialization which if unchecked ends in thoughtless action.

Significantly enough this fullblown result is called absentmindedness. Stimulus and response are mechanically linked together in an unbroken chain. Each successive act facilely evoked by its predecessor pushes us automatically into the next act of a predetermined series. Only a signal flag of distress recalls consciousness to the task of carrying on. Fortunately nature which beckons us to this path of least resistance also puts obstacles in the way of our complete acceptance of its invitation. Success in achieving a ruthless and dull efficiency of action is thwarted by untoward circumstance. The most skilful apitude bumps at times into the unexpected, and so gets into trouble from which only observation and invention extricate it. Efficiency in following a beaten path has then to be converted into breaking a new road through strange lands.

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[1] From *Human Nature and Conduct*, pp. 172-173; 175-180.

Nevertheless what in effect is love of ease has masqueraded morally as love of perfection. A goal of finished accomplishment has been set up which if it were attained would mean only mindless action. It has been called complete and free activity when in truth it is only a treadmill activity or marching in one place. The practical impossibility of reaching, in an all around way and all at once such a "perfection" has been recognized. But such a goal has nevertheless been conceived as the ideal, and progress has been defined as approximation to it. Under diverse intellectual skies the ideal has assumed diverse forms and colors. But all of them have involved the conception of a completed activity, a static perfection. Desire and need have been treated as signs of deficiency, and endeavor as proof not of power but of incompletion.

The fallacy in the many versions of this idea is perhaps the most pervasive of all fallacies in philosophy. So common is it that one questions whether it might not be called *the* philosophical fallacy. It consists in the supposition that whatever is found true under certain conditions may forthwith be asserted universally or without limits and conditions. Because a thirsty man gets satisfaction in drinking water, bliss consists in being drowned. Because the success of any particular struggle is measured by reaching a point of frictionless action, therefore there is such a thing as an all-inclusive end of effortless smooth activity endlessly maintained. It is forgotten that success is success *of* a specific effort, and satisfaction the fulfillment *of* a specific demand, so that success and satisfaction become meaningless when severed from the wants and struggles whose consummations they are, or when taken universally. The philosophy of Nirvana comes the closest to admission of this fact, but even it holds Nirvana to be desirable.

Habit is however more than a restriction of thought. Habits become negative limits because they are first positive agencies. The more numerous our habits the wider the field of possible observation and foretelling. The more flexible they are, the more refined is perception in its discrimination and the more delicate the presentation evoked by imagination. The sailor is intellectually at home on the sea, the hunter in the forest, the painter in his studio, the man of science in his laboratory. These commonplaces are universally recognized in the concrete; but their significance is obscured and their truth denied in the current general theory of mind. For they mean nothing more or less than that habits formed in process of exercising biological aptitudes are the sole agents of observation, recollection, foresight and judgment: a mind or consciousness or soul in general which performs these operations is a myth.

The doctrine of a single, simple and indissoluble soul was the cause and the effect of failure to recognize that concrete habits are the means of knowledge and thought. Many who think themselves scientifically emancipated and who freely advertise the soul for a superstition, perpetuate a false notion of what knows, that is, of a separate knower. Nowadays they usually fix upon consciousness in general, as a stream or process or entity; or else, more specifically upon sensations and images as the tools of intellect. Or sometimes they think they have scaled the last heights of realism by adverting grandiosely to a formal knower in general who serves as one term in the knowing relation; by dismissing psychology as irrelevant to knowledge and logic, they think to conceal the psychological monster they have conjured up.

Now it is dogmatically stated that no such conceptions of the seat, agent or vehicle will go psychologically at the present time. Concrete habits do all the perceiving, recognizing, imagining, recalling, judging, conceiving and reasoning that is done. "Consciousness," whether as a stream or as special sensations and images, expresses functions of habits, phenomena of their formation, operation, their interruption and reorganization.

Yet habit does not, of itself, know, for it does not of itself stop to think, observe or remember. Neither does impulse of itself engage in reflection or contemplation. It just lets go. Habits by themselves are too organized, too insistent and determinate to need to indulge in inquiry or imagination. And impulses are too chaotic, tumultuous and confused to be able to know even if they wanted to. Habit as such is too definitely adapted to an environment to survey or analyze it, and impulse is too indeterminately related to the environment to be capable of reporting anything about it. Habit incorporates, enacts or overrides objects, but it doesn't know them. Impulse scatters and obliterates them with its restless stir. A certain delicate combination of habit and impulse is requisite for observation, memory and judgment. Knowledge which is not projected against the black unknown lives in the muscles, not in consciousness.

We may, indeed, be said to *know how* by means of our habits. And a sensible intimation of the practical function of knowledge has led men to identify all acquired practical skill, or even the instinct of animals, with knowledge. We walk and read aloud, we get off and on street cars, we dress and undress, and do a thousand useful acts without thinking of them. We know something, namely, how to do them. Bergson's philosophy of intuition is hardly more than an elaborately documented commentary on the popular conception that by instinct a bird knows how to build a nest and a spider to weave a web. But after all, this practical work done by habit and instinct in securing prompt and exact adjustment to the environment is not knowledge, except by courtesy. Or, if we choose to call it knowledge—and no one has the right to issue an ukase to the contrary—then other things also called knowledge, knowledge of and *about* things, knowledge *that* things are thus and so, knowledge that involves reflection and conscious appreciation, remains of a different sort, unaccounted for and undescribed.

For it is a commonplace that the more suavely efficient a habit the more unconsciously it operates. Only a hitch in its workings occasions emotion and provokes thought. Carlyle and Rousseau, hostile in temperament and outlook, yet agree in looking at consciousness as a kind of disease, since we have no consciousness of bodily or mental organs as long as they work at ease in perfect health. The idea of disease is, however, aside from the point, unless we are pessimistic enough to regard every slip in total adjustment of a person to its surroundings as something abnormal—a point of view which once more would identify well-being with perfect automatism.

The truth is that in every waking moment, the complete balance of the organism and its environment is constantly interfered with and as constantly restored. Hence the "stream of consciousness" in general, and in particular that phase of it celebrated by William James as alternation of flights and perchings. Life is interruptions and recoveries. Continuous interruption is not possible in the activities of an individual. Absence of perfect equilibrium is not equivalent to a complete crushing of organized activity. When the disturbance amounts to such a pitch as that, the self goes to pieces. It is like shell-shock. Normally, the environment remains sufficiently in harmony with the body of organized activities to sustain most of them in active function. But a novel factor in the surroundings releases some impulse which tends to initiate a different and incompatible activity, to bring about a redistribution of the elements of organized activity between those that have been respectively central and subsidiary. Thus the hand guided by the eye moves toward a surface. Visual quality is the dominant element. The hand comes in contact with an object. The eye does not cease to operate but some unexpected quality of touch, a voluptuous smoothness or annoying heat, compels a readjustment in which the touching, handling activity strives to dominate the action. Now at these moments of a shifting in activity conscious feeling and thought arise and are accentuated. The disturbed adjustment of organism and environment is reflected in a temporary strife which concludes in a coming to terms of the old habit and the new impulse.

In this period of redistribution impulse determines the direction of movement. It furnishes the focus about which reorganization swirls. Our attention in short is always directed forward to bring to notice something which is imminent but which as yet escapes us. Impulse defines the peering, the search, the inquiry. It is, in logical language, the movement into the unknown, not into the immense inane of the unknown at large, but into that special unknown which when it is hit upon restores an ordered, unified action. During this search, old habit supplies content, filling, definite, recognizable, subject-matter. It begins as vague presentiment of what we are going towards. As organized habits are definitely deployed and focused, the confused situation takes on form, it is "cleared up"—the essential function of intelligence. Processes become objects. Without habit there is only irritation and confused hesitation. With habit alone there is a machine-like repetition, a duplicating recurrence of old acts. With conflict of habits and release of impulse there is conscious search.

INTELLIGENCE AND IMPULSE[2]

Impulse is primary and intelligence is secondary and in some sense derivative. There should be no blinking of this fact. But recognition of it as a fact exalts intelligence. For thought is not the slave of impulse to do its bidding. Impulse does not know what it is after; it cannot give orders, not even if it wants to. It rushes blindly into any opening it chances to find. Anything that expends it, satisfies it. One outlet is like another to it. It is indiscriminate. Its vagaries and excesses are the stock theme of classical moralists; and while they point the wrong moral in urging the abdication of impulse in favor of reason, their characterization of impulse is not wholly wrong. What intelligence has to do in the service of impulse is to act not as its obedient servant but as its clarifier and liberator. And this can be accomplished only by a study of the conditions and causes, the workings and consequences of the greatest possible variety of desires and combinations of desire. Intelligence converts desire into plans, systematic plans based on assembling facts, reporting events as they happen, keeping tab on them and analyzing them.

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[2] From *Human Nature and Conduct*, pp. 254-255; 195-198.

The nature of the strife of reason and passion is well stated by William James. The cue of passion, he says in effect, is to keep imagination dwelling upon those objects which are congenial to it, which feed it, and which by feeding it intensify its force, until it crowds out all thought of other objects. An impulse or habit which is strongly emotional magnifies all objects that are congruous with it and smothers those which are opposed whenever they present themselves. A passionate activity learns to work itself up artificially—as Oliver Cromwell indulged in fits of anger when he wanted to do things that his conscience would not justify. A presentiment is felt that if the thought of contrary objects is allowed to get a lodgment in imagination, these objects will work and work to chill and freeze out the ardent passion of the moment.

The conclusion is not that the emotional, passionate phase of action can be or should be eliminated in behalf of a bloodless reason. More "passions," not fewer, is the answer. To check the influence of hate there must be sympathy, while to rationalize sympathy there are needed emotions of curiosity, caution, respect for the freedom of others—dispositions which evoke objects which balance those called up by sympathy, and prevent its degeneration into maudlin sentiment and meddling interference. Rationality, once more, is not a force to evoke against impulse and habit. It is the attainment of a working harmony among diverse desires. "Reason" as a noun signifies the happy cooperation of a multitude of dispositions, such as sympathy, curiosity, exploration, experimentation, frankness, pursuit—to follow things through—circumspection, to look about at the context, etc., etc. The elaborate systems of science are born not of reason but of impulses at first sight and flickering; impulses to handle, move about, to hunt, to uncover, to mix things separated and divide things combined, to talk and to listen. Method is their effectual organization into continuous dispositions of inquiry, development and testing. It occurs after these acts and because of their consequences. Reason, the rational attitude, is the resulting disposition, not a ready-made antecedent which can be invoked at will and set into movement. The man who would intelligently cultivate intelligence will widen, not narrow, his life of strong impulses while aiming at their happy coincidence in operation.

The clew of impulse is, as we say, to start something. It is in a hurry. It rushes us off our feet. It leaves no time for examination, memory and foresight. But the clew of reason is, as the phrase also goes, to stop and think. Force, however, is required to stop the ongoing of a habit or impulse. This is supplied by another habit. The resulting period of delay, of suspended and postponed overt action, is the period in which activities that are refused direct outlet project imaginative counterparts. It signifies, in technical phrase, the mediation of impulse. For an isolated impulse *is* immediate, narrowing the world down to the directly present. Variety of competing tendencies enlarges the world. It brings a diversity of considerations before the mind, and enables action to take place finally in view of an object generously conceived and delicately refined, composed by a long process of selections and combinations. In popular phrase, to be deliberate is to be slow, unhurried. It takes time to put objects in order.

There are however vices of reflection as well as of impulse. We may not look far enough ahead because we are hurried into action by stress of impulse; but we may also become overinterested in the delights of reflection; we may become afraid of assuming the responsibilities of decisive choice and action, and in general be sicklied over by a pale cast of thought. We may become so curious about remote and abstract matters that we give only a begrudged, impatient attention to the things right about us. We may fancy we are glorifying the love of truth for its own sake when we are only indulging a pet occupation and slighting demands of the immediate situation. Men who devote themselves to thinking are likely to be unusually unthinking in some respects, as for example in immediate personal relationships. A man to whom exact scholarship is an absorbing pursuit may be more than ordinarily vague in ordinary matters. Humility and impartiality may be shown in a specialized field, and pettiness and arrogance in dealing with other persons. "Reason" is not an antecedent force which serves as a panacea. It is a laborious achievement of habit needing to be continually worked over. A balanced arrangement of propulsive activities manifested in deliberation—namely, reason—depends upon a sensitive and proportionate emotional sensitiveness. Only a one-sided, overspecialized emotion leads to thinking of it as separate from emotion. The traditional association of justice and reason has good psychology back of it. Both imply a balanced distribution of thought and energy. Deliberation is irrational in the degree in which an end is so fixed, a passion or interest so absorbing, that the foresight of consequences is warped to include only what furthers execution of its predetermined bias. Deliberation is rational in the degree in which forethought flexibly remakes old aims and habits, institutes perception and love of new ends and acts.

DELIBERATION AND CHOICE[3]

Deliberation is a dramatic rehearsal (in imagination) of various competing possible lines of action. It starts from the blocking of efficient overt action, due to that conflict of prior habit and newly released impulse to which reference has been made. Then each habit, each impulse, involved in the temporary suspense of overt action takes its turn in being tried out. Deliberation is an experiment in finding out what the various lines of possible action are really like. It is an experiment in making various combinations of selected elements of habits and impulses, to see what the resultant action would be like if it were entered upon. But the trial is in imagination, not in overt fact. The experiment is carried on by tentative rehearsals in thought which do not affect physical facts outside the body. Thought runs ahead and foresees outcomes, and thereby avoids having to await the instruction of actual failure and disaster. An act overtly tried out is irrevocable, its consequences cannot be blotted out. An act tried out in imagination is not final or fatal. It is retrievable.

Each conflicting habit and impulse takes its turn in projecting itself upon the screen of imagination. It unrolls a picture of its future history, of the career it would have if it were given head. Although overt exhibition is checked by the pressure of contrary propulsive tendencies, this very inhibition gives habit a chance at manifestation in thought. Deliberation means precisely that activity is disintegrated, and that its various elements hold one another up. While none has force enough to become the center of a re-directed activity, or to dominate a course of action, each has enough power to check others from exercising mastery. Activity does not cease in order to give way to reflection; activity is turned from execution into intra-organic channels, resulting in dramatic rehearsal.

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[3] From *Human Nature and Conduct*, pp. 190-195.

If activity were directly exhibited it would result in certain experiences, contacts with the environment. It would succeed by making environing objects, things and persons, co-partners in its forward movement; or else it would run against obstacles and be troubled, possibly defeated. These experiences of contact with objects and their qualities give meaning, character, to an otherwise fluid, unconscious activity. We find out what seeing means by the objects which are seen. They constitute the significance of visual activity which would otherwise remain a blank. "Pure" activity is for consciousness pure emptiness. It acquires a content or filling of meanings only in static termini, what it comes to rest in, or in the obstacles which check its onward movement and deflect it. As has been remarked, the object is that which objects.

There is no difference in this respect between a visible course of conduct and one proposed in deliberation. We have no direct consciousness of what we purpose to do. We can judge its nature, assign its meaning, only by following it into the situations whither it leads, noting the objects against which it runs and seeing how they rebuff or unexpectedly encourage it. In imagination as in fact we know a road only by what we see as we travel on it. Moreover the objects which prick out the course of a proposed act until we can see its design also serve to direct eventual overt activity. Every object hit upon as the habit traverses its imaginary path has a direct effect upon existing activities. It reinforces, inhibits, redirects habits already working or stirs up others which had not previously actively entered in. In thought as well as in overt action, the objects experienced in following out a course of action attract, repel, satisfy, annoy, promote and retard. Thus deliberation proceeds. To say that at last it ceases is to say that choice, decision, takes place.

What then is choice? Simply hitting in imagination upon an object which furnishes an adequate stimulus to the recovery of overt action. Choice is made as soon as some habit, or some combination of elements of habits and impulse, finds a way fully open. Then energy is released. The mind is made up, composed, unified. As long as deliberation pictures shoals or rocks or troublesome gales as marking the route of a contemplated voyage, deliberation goes on. But when the various factors in action fit harmoniously together, when imagination finds no annoying hindrance, when there is a picture of open seas, filled sails and favoring winds, the voyage is definitely entered upon. This decisive direction of action constitutes choice.

It is a great error to suppose that we have no preferences until there is a choice. We are always biased beings, tending in one direction rather than another. The occasion of deliberation is an *excess* of preferences, not natural apathy or an absence of likings. We want things that are incompatible with one another; therefore we have to make a choice of what we *really* want, of the course of action, that is, which most fully releases activities. Choice is not the emergence of preference out of indifference. It is the emergence of a unified preference out of competing preferences. Biases that had held one another in check now, temporarily at least, reinforce one another, and constitute a unified attitude. The moment arrives when imagination pictures an objective consequence of action which supplies an adequate stimulus and releases definitive action. All deliberation is a search for a *way* to act, not for a final terminus. Its office is to facilitate stimulation.

Hence there is reasonable and unreasonable choice. The object thought of may simply stimulate some impulse or habit to a pitch of intensity where it is temporarily irresistible. It then overrides all competitors and secures for itself the sole right of way. The object looms large in imagination; it swells to fill the field. It allows no room for alternatives; it absorbs us, enraptures us, carries us away, sweeps us off our feet by its own attractive force. Then choice is arbitrary, unreasonable. But the object thought of may be one which stimulates by unifying, harmonizing, different competing tendencies. It may release an activity in which all are fulfilled, not indeed, in their original form, but in a "sublimated" fashion, that is in a way which modifies the original direction of each by reducing it to a component along with others in an action of transformed quality. Nothing is more extraordinary than the delicacy, promptness and ingenuity with which deliberation is capable of making eliminations and recombinations in projecting the course of a possible activity. To every shade of imagined circumstance there is a vibrating response; and to every complex situation a sensitiveness as to its integrity, a feeling of whether it does justice to all facts, or overrides some to the advantage of others. Decision is reasonable when deliberation is so conducted. There may be error in the result, but it comes from lack of data not from ineptitude in handling them.

These facts give us the key to the old controversy as to the respective places of desire and reason in conduct. It is notorious that some moralists have deplored the influence of desire; they have found the heart of strife between good and evil in the conflict of desire with reason, in which the former has force on its side and the latter authority. But reasonableness is in fact a quality of an effective relationship among desires rather than a thing opposed to desire. It signifies the order, perspective, proportion which is achieved, during deliberation, out of a diversity of earlier incompatible preferences. Choice is reasonable when it induces us to act reasonably; that is, with regard to the claims of each of the competing habits and impulses. This implies, of course, the presence of a comprehensive object, one which coordinates, organizes and functions each factor of the situation which gave rise to conflict, suspense and deliberation. This is as true when some "bad" impulses and habits enter in as when approved ones require unification. We have already seen the effects of choking them off, of efforts at direct suppression. Bad habits can be subdued only by being utilized as elements in a new, more generous and comprehensive scheme of action, and good ones be preserved from rot only by similar use.

DELIBERATION AND CALCULATION[4]

The poignancy of situations that evoke reflection lies in the fact that we really do not know the meaning of the tendencies that are pressing for action. We have to search, to experiment. Deliberation is a work of discovery. Conflict is acute; one impulse carries us one way into one situation, and another impulse takes us another way to a radically different objective result. Deliberation is not an attempt to do away with this opposition of quality by reducing it to one of amount. It is an attempt to *uncover* the conflict in its full scope and bearing. What we want to find out is what difference each impulse and habit imports, to reveal qualitative incompatibilities by detecting the different courses to which they commit us, the different dispositions they form and foster, the different situations into which they plunge us.

In short, the thing actually at stake in any serious deliberation is not a difference of quantity, but what kind of person one is to become, what sort of self is in the making, what kind of a world is making. This is plain enough in those crucial decisions where the course of life is thrown into widely different channels, where the pattern of life is rendered different and diversely dyed according as this alternative or that is chosen. Deliberation as to whether to be a merchant or a school teacher, a physician or a politician is not a choice of quantities. It is just what it appears to be, a choice of careers which are incompatible with one another, within each of which definitive inclusions and rejections are involved. With the difference in career belongs a difference in the constitution of the self, of habits of thought and feeling as well as of outward action. With it comes profound differences in all future objective relationships. Our minor decisions differ in acuteness and range, but not in principle. Our world does not so obviously hang upon any one of them; but put together they make the world what it is in meaning for each one of us. Crucial decisions can hardly be more than a disclosure of the cumulative force of trivial choices.

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[4] From *Human Nature and Conduct*, pp. 216-219; 199-209.

A radical distinction thus exists between deliberation where the only question is whether to invest money in this bond or that stock, and deliberation where the primary decision is as to the *kind* of activity which is to be engaged in. Definite quantitative calculation is possible in the former case because a decision as to kind or direction of action does not have to be made. It has been decided already, whether by persistence of habit, or prior deliberation, that the man is to be an investor. The significant thing in decisions proper, the course of action, the kind of a self, simply doesn't enter in; it isn't in question. To reduce all cases of judgment of action to this simplified and comparatively unimportant case of calculation of quantities, is to miss the whole point of deliberation.

It is another way of saying the same thing to note that business calculations about pecuniary gain never concern direct use in experience. They are, as such, not deliberations about good or satisfaction at all. The man who decides to put business activity before all other claims whatsoever, before that of family or country or art or science, does make a choice about satisfaction or good. But he makes it as a man, not as a business man. On the other hand, what is to be *done* with business profit when it accrues (except to invest it in similar undertakings) does not enter at all into a strictly business deliberation. Its use, in which alone good or satisfaction is found, is left indeterminate, contingent upon further deliberation, or else is left a matter of routine habit. We do not eat money, or wear it, or marry it, or listen for musical strains to issue from it. If by any chance a man prefers a less amount of money to a greater amount, it is not for economic reasons. Pecuniary profit in itself, in other words, is always strictly instrumental, and it is of the nature of this instrument to be effective in proportion to size. In choosing with respect to it, we are not making a significant choice, a choice of ends.

The office of deliberation is not to supply an inducement to act by figuring out where the most advantage is to be procured. It is to resolve entanglements in existing activity, restore continuity, recover harmony, utilize loose impulse and redirect habit. To this end observation of present conditions, recollection of previous situations are devoted. Deliberation has its beginning in troubled activity and its conclusion in choice of a course of action which straightens it out. It no more resembles the casting-up of accounts of profit and loss, pleasures and pains, than an actor engaged in drama resembles a clerk recording debit and credit items in his ledger.

The primary fact is that man is a being who responds in action to the stimuli of the environment. This fact is complicated in deliberation, but it certainly is not abolished. We continue to react to an object presented in imagination as we react to objects presented in observation. The baby does not move to the mother's breast because of calculation of the advantages of warmth and food over against the pains of effort. Nor does the miser seek gold, nor the architect strive to make plans, nor the physician to heal, because of reckonings of comparative advantage and disadvantage. Habit, occupation, furnishes the necessity of forward action in one case as instinct does in the other. We do not act *from* reasoning; but reasoning puts before us objects which are not directly or sensibly present, so that we then may react directly to these objects, with aversion, attraction, indifference or attachment, precisely as we would to the same objects if they were physically present. In the end it results in a case of direct stimulus and response. In one case the stimulus is presented at once through sense; in the other case, it is indirectly reached through memory and constructive imagination. But the matter of directness and indirectness concerns the way the stimulus is reached, not the way in which it operates.

Joy and suffering, pain and pleasure, the agreeable and disagreeable, play their considerable rôle in deliberation. Not, however, by way of a calculated estimate of future delights and miseries, but by way of experiencing present ones. The reaction of joy and sorrow, elation and depression, is as natural a response to objects presented in imagination as to those presented in sense. Complacency and annoyance follow hard at the heels of any object presented in image as they do upon its sensuous experience. Some objects when thought of are congruent to our existing state of activity. They fit in, they are welcome. They agree, or are agreeable, not as matter of calculation but as matter of experienced fact. Other objects rasp; they cut across activity; they are tiresome, hateful, unwelcome. They disagree with the existing trend of activity, that is, they are disagreeable, and in no other way than as a bore who prolongs his visit, a dun we can't pay, or a pestiferous mosquito who goes on buzzing. We do not think of future losses and expansions. We think, through imagination, of objects into which in the future some course of action will run, and we are *now* delighted or depressed, pleased or pained at what is presented. This running commentary of likes and dislikes, attractions and disdains, joys and sorrows, reveals to any man who is intelligent enough to note them and to study their occasions his own character. It instructs him as to the composition and direction of the activities that make him what he is. To know what jars an activity and what agrees with it is to know something important about that activity and about ourselves.

Some one may ask what practical difference it makes whether we are influenced by calculation of future joys and annoyances or by experience of present ones. To such a question one can hardly reply except in the words "All the difference in the world." In the first place, no difference can be more important than that which concerns the nature of the *subject-matter* of deliberation. The calculative theory would have it that this subject-matter is future feelings, sensations, and that actions and thought are external means to get and avoid these sensations. If such a theory has any practical influence, it is to advise a person to concentrate upon his own most subjective and private feelings. It gives him no choice except between a sickly introspection and an intricate calculus of remote, inaccessible and indeterminate results. In fact, deliberation, as a tentative trying-out of various courses of action, is outlooking. It flies toward and settles upon objective situations not upon feelings. No doubt we sometimes fall to deliberating upon the effect of action upon our future feelings, thinking of a situation mainly with reference to the comforts and discomforts it will excite in us. But these moments are precisely our sentimental moments of self-pity or self-glorification. They conduce to morbidity, sophistication, isolation from others; while facing our acts in terms of their objective consequences leads to enlightenment and to consideration of others. The first objection therefore to deliberation as a calculation of future feelings is that, if it is consistently adhered to, it makes an abnormal case the standard one.

If however an objective estimate is attempted, thought gets speedily lost in a task impossible of achievement. Future pleasures and pains are influenced by two factors which are independent of present choice and effort. They depend upon our own state at some future moment and upon the surrounding circumstances of that moment. Both of these are variables which change independently of present resolve and action. They are much more important determinants of future sensations than is anything which can now be calculated. Things sweet in anticipation are bitter in actual taste, things we now turn from in aversion are welcome at another moment in our career. Independently of deep changes in character, such as from mercifulness to callousness, from fretfulness to cheerfulness, there are unavoidable changes in the waxing and waning of activity. A child pictures a future of unlimited toys and unrestricted sweetmeats. An adult pictures an object as giving pleasure while he is empty and the thing arrives in a moment of repletion. A sympathetic person reckons upon the utilitarian basis the pains of others as a debit item in his calculations. But why not harden himself so that others' sufferings won't count? Why not foster an arrogant cruelty so that the suffering of others which will follow from one's own action will fall on the credit side of the reckoning, be pleasurable, all to the good?

Future pleasures and pains, even of one's own, are among the things most elusive of calculation. Of all things they lend themselves least readily to anything approaching a mathematical calculus. And the further into the future we extend our view, and the more the pleasures of others enter into the account, the more hopeless does the problem of estimating future consequences become. All of the elements become more and more indeterminate. Even if one could form a fairly accurate picture of the things that give pleasure to most people at the present moment—an exceedingly difficult task—he cannot foresee the detailed circumstances which will give a decisive turn to enjoyment at future times and remote places. Do pleasures due to defective education or unrefined disposition, to say nothing of the pleasures of sensuality and brutality, rank the same as those of cultivated persons having acute social sensitiveness? The only reason the impossibility of the hedonistic calculus is not self-evident is that theorists in considering it unconsciously substitute for calculation of future pleasures an appreciation of present ones, a present realization in imagination of future objective situations.

For, in truth, a man's judgment of future joys and sorrows is but a projection of what now satisfies and annoys him. A man of considerate disposition now feels hurt at the thought of an act bringing harm to others, and so he is on the lookout for consequences of that sort, ranking them as of high importance. He may even be so abnormally sensitive to such consequences that he is held back from needed vigorous action. He fears to do the things which are for the real welfare of others because he shrinks from the thought of the pain to be inflicted upon them by needed measures. A man of an executive type, engrossed in carrying through a scheme, will react in present emotion to everything concerned with its external success; the pain its execution brings to others will not occur to him, or if it does, his mind will easily glide over it. This sort of consequence will seem to him of slight importance in comparison with the commercial or political changes which bulk in his plans. What a man foresees and fails to foresee, what he appraises highly and at a low rate, what he deems important and trivial, what he dwells upon and what he slurs over, what he easily recalls and what he naturally forgets—all of these things depend upon his character. His estimate of future consequences of the agreeable and annoying is consequently of much greater value as an index of what he now is than as a prediction of future results.

One has only to read between the lines to see the enormous difference that marks off modern utilitarianism from epicureanism, in spite of similarities in professed psychologies. Epicureanism is too worldly-wise to indulge in attempts to base present action upon precarious estimates of future and universal pleasures and pains. On the contrary it says let the future go, for life is uncertain. Who knows when it will end, or what fortune the morrow will bring? Foster, then, with jealous care every gift of pleasure now allotted to you, dwell upon it with lingering love, prolong it as best you may. Utilitarianism on the contrary was a part of a philanthropic and reform movement of the nineteenth century. Its commendation of an elaborate and impossible calculus was in reality part of a movement to develop a type of character which should have a wide social outlook, sympathy with the experiences of all sentient creatures, one zealous about the social effects of all proposed acts, especially those of collective legislation and administration. It was concerned not with extracting the honey of the passing moment but with breeding improved bees and constructing hives.

After all, the object of foresight of consequences is not to predict the future. It is to ascertain the meaning of present activities and to secure, so far as possible, a present activity with a unified meaning. We are not the creators of heaven and earth; we have no responsibility for their operations save as their motions are altered by our movements. Our concern is with the significance of that slight fraction of total activity which starts from ourselves. The best laid plans of men as well as of mice gang aglee; and for the same reason: inability to dominate the future. The power of man and mouse is infinitely constricted in comparison with the power of events. Men always build better or worse than they know, for their acts are taken up into the broad sweep of events.

Hence the problem of deliberation is not to calculate future happenings but to appraise present proposed actions. We judge present desires and habits by their tendency to produce certain consequences. It is our business to watch the course of our action so as to see what is the significance, the import of our habits and dispositions. The future outcome is not certain. But neither is it certain what the present fire will do in the future. It may be unexpectedly fed or extinguished. But its *tendency* is a knowable matter, what it will do under certain circumstances. And so we know what is the tendency of malice, charity, conceit, patience. We know by observing their consequences, by recollecting what we have observed, by using that recollection in constructive imaginative forecasts of the future, by using the thought of future consequence to tell the quality of the act now proposed.

Deliberation is not calculation of indeterminate future results. The present, not the future, is ours. No shrewdness, no store of information will make it ours. But by constant watchfulness concerning the tendency of acts, by noting disparities between former judgments and actual outcomes, and tracing that part of the disparity that was due to deficiency and excess in disposition, we come to know the meaning of present acts, and to guide them in the light of that meaning. The moral is to develop conscientiousness, ability to judge the significance of what we are doing and to use that judgment in directing what we do, not by means of direct cultivation of something called conscience, or reason, or a faculty of moral knowledge, but by fostering those impulses and habits which experience has shown to make us sensitive, generous, imaginative, impartial in perceiving the tendency of our inchoate dawning activities. Every attempt to forecast the future is subject in the end to the auditing of present concrete impulse and habit. Therefore the important thing is the fostering of those habits and impulses which lead to a broad, just, sympathetic survey of situations.

The occasion of deliberation, that is of the attempt to find a stimulus to complete overt action in thought of some future object, is confusion and uncertainty in present activities. A similar division in activities and need of a like deliberative activity for the sake of recovery of unity is sure to recur, to recur again and again, no matter how wise the decision. Even the most comprehensive deliberation leading to the most momentous choice only fixes a disposition which has to be continuously applied in new and unforeseen conditions, re-adapted by future deliberations. Always our old habits and dispositions carry us into new fields. We have to be always learning and relearning the meaning of our active tendencies.

Does not this reduce moral life to the futile toil of a Sisyphus who is forever rolling a stone uphill only to have it roll back so that he has to repeat his old task? Yes, judged from progress made in a control of conditions which shall stay put and which excludes the necessity of future deliberations and reconsiderations. No, because continual search and experimentation to discover the meaning of changing activity, keeps activity alive, growing in significance. The future situation involved in deliberation is of necessity marked by contingency. What it will be in fact remains dependent upon conditions that escape our foresight and power of regulation. But foresight which draws liberally upon the lessons of past experience reveals the tendency, the meaning, of present action; and, once more, it is this present meaning rather than the future outcome which counts. Imaginative forethought of the probable consequences of a proposed act keeps that act from sinking below consciousness into routine habit or whimsical brutality. It preserves the meaning of that act alive, and keeps it growing in depth and refinement of meaning. There is no limit to the amount of meaning which reflective and meditative habit is capable of importing into even simple acts, just as the most splendid successes of the skilful executive who manipulates events may be accompanied by an incredibly meager and superficial consciousness.

CHAPTER ELEVEN

MORALS AND SCIENCE

MORAL THEORY AND PRACTICE[1]

It seems to me that I can detect in much of current ethical discussion a lurking idea that moral conduct is something other than or over and above, conduct itself—understanding by conduct distinctively human action, that based upon and realizing ideas. Because the notion lurks it is difficult to dislodge—all the more when the lurking is so evanescent that one feels, in attacking it, as if the holder of its fortress might himself disown its presence. But there is an ally of this idea which is not indeed marshalled in open array upon the battlefield, but about whose presence there can be no doubt—the idea that moral theory is something other than, or something beyond an analysis of conduct—the idea that it is not simply and wholly "the theory of practice." Moral theory, for example, is often regarded as an attempt to find a philosophic "basis" or foundation for moral activity in something beyond that activity itself. Now, then, when the question comes up as to the relation of moral theory and moral conduct, the man who denies any intrinsic connection is without doubt in possession. One will hardly have the hardihood to stand and assert that until the Platonic, or the Kantian, or the Spencerian system of philosophy has been "proved," moral activity is impossible. Again, moral theory is not seldom conceived as, in Mill's phrase, a nautical almanac, or an ethical prescription or cook-book,—a collection of "rules" for conduct. When this view of moral theory is held, I, for one, shall not say nay to the man who states that there is no intrinsic connection between theory and practice. The hortatory pulpit and its modern congener and heir-apparent, the editorial page of the newspaper, may be left to uphold the idea that precepts are the great moral force of the world. But yet it does not go assured that there is no intrinsic relation between theory and practice. The trouble may be, after all, in an aborted conception of theory.

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[1] From "Moral Theory and Practice," in *International Journal of Ethics*, Vol. I, pp. 187-197.

What, then, is moral theory? It is all one with moral *insight*, and moral insight is the recognition of the relationships in hand. This is a very tame and prosaic conception. It makes moral insight, and therefore moral theory, consist simply in the every-day workings of the same ordinary intelligence that measures dry-goods, drives nails, sells wheat, and invents the telephone. There is no more halo about the insight that determines what I should do in this catastrophe of life when the foundations are upheaving and my bent for eternity lies waiting to be fixed, than in that which determines whether commercial conditions favor heavy or light purchases. There is nothing more divine or transcendental in resolving how to save my degraded neighbor than in the resolving of a problem in algebra, or in the mastery of Mill's theory of induction. It may be well to bow with bated breath before every working of intelligence but to baptize moral insight with any peculiar sacredness is to find a changeling in our hands,—sentimentalism.

Moral theory, then, is the analytic perception of the conditions and relations in hand in a given act,—it is the action *in idea*. It is the construction of the act in thought against its outward construction. *It is, therefore, the doing—the act itself, in its emerging.* So far are we from any divorce of moral theory and practice that theory is the ideal act, and conduct is the executed insight. This is our thesis.

It is true a man can walk without a certain kind of knowledge of the process of locomotion; that he can eat without a certain kind of knowledge of foods and of digestive processes. But if this is to prove that conduct is other than an expression of "theory" of the conceptions of intelligence the basis of this analogy must be looked after. A man can plough without a knowledge of aeronautics but this hardly proves that ploughing comes before a knowledge of how to plough, and that the knowledge of how to plough is gleaned from reflecting upon the various acts of ploughing already performed. A man may talk through a telephone without understanding the theory of its construction, but it would hardly be a safe inference that therefore he could talk through it without knowing what he was going to say, much less without knowing how to talk. The child who walks may not "understand the mechanism of locomotion" but he had once painfully and slowly to form a theory of walking none the less. I should hardly know where to find a better example of the dependence of conduct upon theory than the toil of learning to interpret and connect those signs upon which the mastery of the act of locomotion rests. What the well-worn illustrations of walking without knowledge of the theory of locomotion, of reasoning without knowledge of the syllogism, etc., prove is that a man may know some things without knowing others,—others which, in ultimate analysis, are related. Where, however, there is anything which deserves the name of conduct, there is an idea, a "theory" at least as large as the action. Because the theory is narrow in scope it is not lacking; and it is narrow only so far as the corresponding act is abstract and partial. The average man can walk without *much* theory, because walking is not an act of *great* content. The specialist in locomotor diseases, and the painter of men and animals in motion, finds in his larger activity a knowledge of the mechanism not out of place.

And I hope the reader will not miss the point in the illustrations. For any act (as distinct from mere impulse) there must be "theory," and the wider the act, the greater its import, the more exigent the demand for theory. It is not likely that the wheels of moral movement are to be reversed after two thousand and more years. It was Socrates who initiated the movement, when he said, that "an unexamined life is not one to be led by man." Whatever may be the case with savages and babes, the beginning of every ethical advance, under conditions of civilized existence, must be in a further "examination of life." Not even customary morality, that of respectability and of convention, is freed from dependence upon theory; it simply lives off the funded results of some once-moving examination of life.

Men indeed *profess* doctrines which do not touch their characters, but neither do the professions touch their intellects,—i.e., they are not doctrines at all, but dogmas. For a doctrine, a theory, is, I take it, a mode of intellectual activity; a dogma, a burden or load upon intellectual activity. To identify moral theory with ideas imported from outside moral practice without any attempt to justify such a conception of theory, is, I submit, a most startling performance. Theory is theory of practice. Is it not time that, before an attempt is made to divorce practice from theory, we should have a little effort to define what is meant by theory?

Perhaps, however, I shall be told that I am somewhat disingenuous in identifying an idea of action with moral theory; that theory perforce means a reflective and systematic account of things, while an idea means simply a mental conception of what should be done. I hope there is some such objector, for it gives me occasion to say that I think such a separation of theory from idea is at the root of the confusion which I am trying to clear up. My claim is precisely that an idea of what is to be done and moral theory are identical; that the sole difference between the idea of a child, that he ought to learn the multiplication-table, or be kind to his baby-sister, and the widest moral theory—the one recognized as theory by every one—is simply one of degree of analysis of what practice is, and not a difference of kind. Action to the child is narrow and partial, and his theory is limited.

It seems a truism to remark that every theory is of its own subject-matter, and must be wholly relevant to its subject-matter. Conduct is absolutely individualized. Abstract action, action which is not categorical through and through, is the one last contradiction of logic and of life. There is no such thing as conduct in general; conduct is what and where and when and how to the last inch.

What I am getting at, in a word, is that the ordinary idea of moral theory shears off the very factors which make it *moral* theory at all and reduces it to the plane of physical theory. Physical science does deal with abstractions, with hypotheses. It says, "If this, then that." It deals with the relations of conditions and not with facts, or individuals, at all. It says, "I have nothing to do with your concrete falling stone, but I can tell you this, that it is a law of falling bodies, that, etc. You must make your own allowances in applying this universal formula to the special case, according to the peculiar circumstances of the special case." Now, the pundit who should allow his final deliverances to go out in the form of "If this, then that" (excepting as a way of saying, "I do not know enough of this concrete case to have any theory about it"), would be denying the sole condition of *moral* theory; he would be mutilating the moral fact, the individualized act, till it was a mere bundle of abstractions.

Shall I be told then, that there can be no such thing as moral theory at all? That it is impossible to get a theory which shall be concrete and individualized as the act is concrete and individualized? Ah, but my objector, there *is* such a thing. Every man, before he acts, always has such a theory unless his act is one of mere impulse. It is true enough that he may not exhaust, that he may never exhaust, all the real concreteness of the act; but none the less his idea of the act is individualized as far as it goes; it may be a smaller individual than the real act, but this does not make it an abstract universal. What he sees, in a word, is *this* act, although the "this" he sees may not be the true complete "this."

What we come to is: Moral theory cannot exist in a book. Moral science is *not* a collection of abstract laws. It is only in the mind of an agent as an agent. It is his perception of the acts that need doing,—that is, his perception of the existing world of practice in all its concrete relationships.

Moral theory, so far as it can exist outside of the particular agent concerned with a special act, exists in the mind of him who can reproduce the condition of that agent. Just because moral practice is so individual or concrete, you can theorize for another only as you "put yourself in his place."

What shall we say of the relation of an ethical "system," that of Mill or Spencer, to moral conduct?

I must revert again to the position already taken. Moral conduct is precisely that which realizes an idea, a conception. The breadth of action (so far as moral value is concerned and not historical outcome) is measured by the insight of the agent. What are the conditions which require action, and what is the action which they demand? Just so far as this question is raised and answered, action is moral and not *merely* instinctive, or sentimental. This is evidently a work of analysis. Like every analysis, it requires that the one making it be in possession of certain working tools. I cannot resolve this practical situation which faces me by merely looking at it. I must attack it with such instruments of analysis as I have at hand. *What we call moral rules are precisely such tools of analysis.* "I ought not to lie." Very well, then, would doing so and so be telling the truth? What *is* telling the truth in this instance? "I should do as I would be done by." Very well; what would I have done to me in this case? that is to say, what are the personal relations involved here? Some, who would be the first to repudiate the practical consequences in the way of casuistry logically involved, entertain the idea that a moral law is a command: that it actually tells us what we should or should not do! The Golden Rule gives me absolutely no knowledge, of itself, of what I should do. The question of what in this case I should do in order to do as I would be done by has still to be resolved, though the Golden Rule be a thousand times my maxim. The rule is a counsel of perfection; it is a warning that in my analysis of the moral situation (that is, of the conditions of practice) I be impartial as to the effects on me and thee. Or, it is the statement of a principle,—the principle of individuality, that the activity of every man concerned has an equal claim for consideration; that though I be a great Pharisee or the high-priest himself, I am bound to consider the welfare of that miserable sinner of a publican as I would my own. About the specific act to be done it tells, I repeat, not a jot. But it is a most marvellous tool of analysis; it helps me hew straight and fine in clearing out this jungle of relations of practice.

What this rule is, that every rule is, which has any use at all. This is the grain of truth in Mill's idea of a nautical almanac. The almanac after all does not tell the sailor where he is nor how to navigate. It is an aid in his analysis of the required conditions of right navigation. In the supreme art of life the tools must be less mechanical; more depends upon the skill of the artist in their manipulation, but they are none the less useful. Our mastery of a required case of action would be slow and wavering if we had to forge anew our weapons of attack in each instance. The temptation to fall back on the impulse or accident of the moment would be well nigh irresistible. And so it is well we have our rules at hand, but well only if we have them for *use.*

What is the connection of this, however, with special philosophic systems? Just this: the rule as a tool of analysis is an idea. The Golden Rule is, as suggested, the idea of the value of individuality; the rule of truthfulness is the idea of the transparence of media in all human ex-changes, etc. A philosophic theory of ethics is a similar idea, but one of deeper grasp, and therefore wider hold. It bears much the same relation to the particular rule as this to the special case. It is a tool for the analysis of its meaning, and thereby a tool for giving it greater affect. It is hardly necessary, I suppose, to profess the deepest respect for the Golden Rule, but this is not inconsistent with recognizing that if it were not held open to reflective criticism, to analysis of meaning and bearing, it would surely degenerate into a mere external command. That it, or any other rule, may be a workable tool, that it may really give aid in a specific case, it must have life and spirit. What can give it the life and spirit necessary to make it other than a cramped and cramping petrification except the continued free play of intelligence upon it?

The Golden Rule itself, in other words, except as an idea among ideas, would speedily become either an external command, a merely speculative abstraction (an ideal with a big *I*, and no *r* for reality at all), or that deadest of all dead things, a preacher's mere exhortation. What would this particular rule have amounted to practically if there had not been ideas back of it, which vivified it by taking it out of its isolation, and by making it one element in a vast picture of the world,—the Pauline idea, for example, of a divine spirit incarnate in all mankind, and the stoic idea of a republic of humanity? And if the Golden Rule now seems to stand and do its work by itself, it is because these other larger ideas, and such as they, have so realized themselves; have died as mere ideas, and been buried in the common consciousness of men, now arising thence as in effect a normal part of the outlook upon life. They have become so integrated with the content of the Golden Rule that the latter itself has become a vast idea, or working tool, of practice.

Now it will be found, upon examination, that every philosophic theory of ethics performs in its degree this same service. It serves, at its time, to preserve the minor rule, the instrument of the ordinary man, from fossilizing.

Let rules be conceived as formal prescripts of some outside law-giver, human or divine, and utilitarianism responds with its new criticism—its insistence upon their relation to human welfare. Let rules slip away into sickly sentimentalism, or harden into rude militarism, and a Kant responds with his equal assertion of law and freedom. And in time these ideas filter into the average consciousness, and their truth becomes, wholly unawares to the average consciousness, a part of the ordinary insight into life—a part of the meaning of the world of practice in which we live. Life looks different to-day to the man to whom Bentham and Kant are not even names, because of the formulæ of the greatest good, the autonomy of will, and the categorical imperative. In conclusion, it is a piece of scholasticism to suppose that a moral rule has its own self-defining and self-applying content. What truth-telling, what honesty, what patience, what self-respect are, changes with every change of intelligence, with every added insight into the relations of men and things. It is only the breath of intelligence blowing through such rules that keeps them from the putrefaction which awaits all barren idealities.

There is and can be, then, a rigid line between "ideas about morals" (if only they be really ideas,—movements of intelligence) and "moral ideas." The former are the latter in the making. It is only as our moral ideas, our conceptions of this and that thing which needs doing, are reinforced and reconstructed by larger inquiries into the reality of human relationships that they are preserved. And it is only as our ideas about morals realize themselves, only as they become part of the working behavior of the mind towards its concrete duties, that they are other than curiosities for the collector of the bric-a-brac of thought. That they are other, that the history of ethical thought is a record of profound interest to him who has the eyes to read, is because this history is a history of enlarging action; because moral theories are man's first reconstruction of the moral world into a larger and freer one.

THE NATURE OF THE MORAL SITUATION [2]

Morals has to do with all activity into which alternative possibilities enter. For wherever they enter a difference between better and worse arises. Reflection upon action means uncertainty and consequent need of decision as to which course is better. The better is the good; the best is not better than the good but is simply the discovered good. Comparative and superlative degrees are only paths to the positive degree of action. The worse or evil is a rejected good. In deliberation and before choice no evil presents itself as evil. Until it is rejected, it is a competing good. After rejection, it figures not as a lesser good, but as the bad of that situation.

Actually then only deliberate action, conduct into which reflective choice enters, is distinctively moral, for only then does there enter the question of better and worse. Yet it is a perilous error to draw a hard and fast line between action into which deliberation and choice enter and activity due to impulse and matter-of-fact habit. One of the consequences of action is to involve us in predicaments where we have to reflect upon things formerly done as matter of course. One of the chief problems of our dealings with others is to induce them to reflect upon affairs which they usually perform from unreflective habit. On the other hand, every reflective choice tends to relegate some conscious issue into a deed or habit henceforth taken for granted and not thought upon. Potentially therefore every and any act is within the scope of morals, being a candidate for possible judgment with respect to its better-or-worse quality. It thus becomes one of the most perplexing problems of reflection to discover just how far to carry it, what to bring under examination and what to leave to unscrutinized habit. Because there is no final recipe by which to decide this question all moral judgment is experimental and subject to revision by its issue.

[2] From *Human Nature and Conduct*, pp. 278-80; 39-40.

The recognition that conduct covers every act that is judged with reference to better and worse and that the need of this judgment is potentially coextensive with all portions of conduct, saves us from the mistake which makes morality a separate department of life. Potentially conduct is one hundred per cent of our acts. Hence we must decline to admit theories which identify morals with the purification of motives, edifying character, pursuing remote and elusive perfection, obeying supernatural command, acknowledging the authority of duty. Such notions have a dual bad effect. First they get in the way of observation of conditions and consequences. They divert thought into side issues. Secondly, while they confer a morbid exaggerated quality upon things which are viewed under the aspect of morality, they release the larger part of the acts of life from serious, that is moral, survey. Anxious solicitude for the few acts which are deemed moral is accompanied by edicts of exemption and baths of immunity for most acts. A moral moratorium prevails for every day affairs.

The mutual modification of habits by one another enables us to define the nature of the moral situation. It is not necessary nor advisable to be always considering the interaction of habits with one another, that is to say the effect of a particular habit upon character—which is a name for the total interaction. Such consideration distracts attention from the problem of building up an effective habit. A man who is learning French, or chess-playing or engineering has his hands full with his particular occupation. He would be confused and hampered by constant inquiry into its effect upon character. He would resemble the centipede who by trying to think of the movement of each leg in relation to all the others was rendered unable to travel. At any given time, certain habits must be taken for granted as a matter of course. Their operation is not a matter of moral judgment. They are treated as technical, recreational, professional, hygienic or economic or esthetic rather than moral. To lug in morals, or ulterior effect on character at every point, is to cultivate moral valetudinarianism or priggish posing. Neverthless any act, even that one which passes ordinarily as trivial, may entail such consequences for habit and character as upon occasion to require judgment from the standpoint of the whole body of conduct. It then comes under moral scrutiny. To know when to leave acts without distinctive moral judgment and when to subject them to it is itself a large factor in morality. The serious matter is that this relative pragmatic, or intellectual, distinction between the moral and non-moral, has been solidified into a fixed and absolute distinction, so that some acts are popularly regarded as forever within and others forever without the moral domain. From this fatal error recognition of the relations of one habit to others preserves us. For it makes us see that character is the name given to the working interaction of habits, and that the cumulative effect of insensible modifications worked by a particular habit in the body of preferences may at any moment require attention.

THE EMPIRICAL NATURE OF MORALS[3]

Since morals is concerned with conduct, it grows out of specific empirical facts. Almost all influential moral theories, with the exception of the utilitarian, have refused to admit this idea. For Christendom as a whole, morality has been connected with supernatural commands, rewards and penalties. Those who have escaped this superstition have contented themselves with converting the difference between this world and the next into a distinction between the actual and the ideal, what is and what should be. The actual world has not been surrendered to the devil in name, but it is treated as a display of physical forces incapable of generating moral values. Consequently, moral considerations must be introduced from above. Human nature may not be officially declared to be infected because of some aboriginal sin, but it is said to be sensuous, impulsive, subjected to necessity, while natural intelligence is such that it cannot rise above a reckoning of private expediency.

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[3] From *Human Nature and Conduct*, pp. 295-296.

But in fact morals is the most humane of all subjects. It is that which is closest to human nature; it is ineradicably empirical, not theological nor metaphysical nor mathematical. Since it directly concerns human nature, everything that can be known of the human mind and body in physiology, medicine, anthropology, and psychology is pertinent to moral inquiry. Human nature exists and operates in an environment. And it is not "in" that environment as coins are in a box, but as a plant is in the sunlight and soil. It is of them, continuous with their energies, dependent upon their support, capable of increase only as it utilizes them, and as it gradually rebuilds from their crude indifference an environment genially civilized. Hence physics, chemistry, history, statistics, engineering science, are a part of disciplined moral knowledge so far as they enable us to understand the conditions and agencies through which man lives, and on account of which he forms and executes his plans. Moral science is not something with a separate province. It is physical, biological and historic knowledge placed in a human context where it will illuminate and guide the activities of men.

THE TWO MEANINGS OF SCIENCE[4]

The phrase "body of systematized knowledge" may be taken in different senses. It may designate a property which resides inherently in arranged facts, apart from the ways in which the facts have been settled upon to be facts, and apart from the way in which their arrangement has been secured. Or, it may mean the intellectual activities of observing, describing, comparing, inferring, experimenting, and testing, which are necessary in obtaining facts and in putting them into coherent form. The term should include both of these meanings. But since the static property of arrangement is dependent upon antecedent dynamic processes, it is necessary to make explicit such dependence. We need to throw the emphasis in using the term "scientific" first upon methods, and then upon results through reference to methods.

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[4] From *Logical Conditions of a Scientific Treatment of Morality*, loc. cit., pp. 115-116.

The transition from an ordinary to a scientific attitude of mind coincides with ceasing to take certain things for granted and assuming a critical or inquiring and testing attitude. This transformation means that some belief and its accompanying statement are no longer taken as self-sufficing and complete in themselves, but are regarded as *conclusions.* To regard a statement as a conclusion, means (1) that its basis and ground lie outside of itself. This reference beyond itself sets us upon the search for prior assertions which are needed in order to make this one, i.e., upon inquiry. (2) Such prior statements are considered with reference to their bearings or import in the determination of some further statement, i.e., a consequent. The meaning or significance of a given statement lies, logically, in other statements to which we are committed in making the one in question. Thus we are set upon reasoning, the development of the assertions to which a particular assertion or view commits and entitles us. Our attitude becomes scientific in the degree in which we look in both directions with respect to every judgment passed; first, checking or testing its validity by reference to possibility of making other and more certain judgments with which this one is bound up; secondly, fixing its meaning (or significance) by reference to its use in making other statements. The determination of *validity* by reference to possibility of making other judgments upon which the one in question depends, and the determination of *meaning* by reference to the necessity of making other statements to which the one in question entitles us, are the two marks of scientific procedure.

So far as we engage in this procedure, we look at our respective acts of judging not as independent and detached, but as an interrelated system, within which every assertion entitles us to other assertions (which must be carefully deduced since they constitute its meaning) and to which we are entitled only through other assertions (so that they must be carefully searched for). "Scientific" thus means the possibility of establishing an order of judgments such that each one, when made, is of use in determining other judgments, thereby securing control of their formation.

Such a conception of "scientific," throwing the emphasis upon the inherent logic of an inquiry rather than upon the particular form which the results of the inquiry assume, may serve to obviate some of the objections which at once suggest themselves when there is mention of a science of conduct. Unless this conception is emphasized, the term "science" is likely to suggest those bodies of knowledge which are most familiar to us in physical matters; and thus to give the impression that what is sought is reduction of matters of conduct to similarly physical or even quasi-mathematical form. It is, however, analogy with the method of inquiry, not with the final product, which is intended. Yet, while this explanation may preclude certain objections, it is far, in the present state of discussion, from removing all objections and thus securing a free and open field. The point of view expressly disclaims any effort to reduce the statement of matters of conduct to forms comparable with those of physical science. But it also expressly proclaims an identity of logical procedure in the two cases.

THE POSSIBILITY OF A SCIENCE OF MORALS[5]

In considering this possibility, we are met, as just indicated, by an assertion that there is something in the very nature of conduct which prevents the use of logical methods in the way they are employed in already recognized spheres of scientific inquiry. The objection implies that *moral* judgment is of such character that nothing can be systematically extracted from any one which is of use in facilitating and guaranteeing the formation of others. It denies, from the logical side, the continuity of moral experience. If there were such continuity, any one judgment could be dealt with in such a way as to make of it a conscious tool for forming other judgments. The ground of denial of continuity in moral experience rests upon the belief that the basis and justifying principle of the ethical judgment is found in transcendental conceptions, viz., considerations that do not flow from the course of experience as that is judged in terms of itself, but which have a significance independent of the course of experience as such.

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[5] From *Logical Conditions of a Scientific Treatment of Morality,* loc. cit., pp. 116-118.

The assertion of such logical disparity assumes a variety of forms, all coming back to pretty much the same presupposition. One way of putting the matter is that ethical judgments are immediate and intuitive. If this be true, an ethical judgment cannot be considered a conclusion; and hence there can be no question of putting it into orderly intellectual (or logical) relations with other like judgments. A merely immediate judgment is, by the nature of the case, incapable of either intellectual rectification or of intellectual application. This view finds expression in popular consciousness in the notion that scientific judgments depend upon reason, while moral valuations proceed from a separate faculty, conscience, having its own criteria and methods not amenable to intellectual supervision.

Another way of affirming radical disparity is that scientific judgments depend upon the principle of causation, which of necessity carries with it the dependence of one phenomenon upon another, and thus the possibility of stating every fact in connection with the statement of some other fact; while moral judgments involve the principle of final cause, of end and ideal. Hence to endeavor to control the construction and affirmation of any content of moral judgment by reference to antecedent propositions is to destroy its peculiar moral quality. Or, as it is popularly expressed, ethical judgment is ethical just because it is not scientific; because it deals with norms, values, ideals, not with given facts; with what *ought* to be, estimated through pure spiritual aspiration, not with what *is*, decided after investigation.

Pretty much the same point of view is expressed when it is said that scientific judgments, as such, state facts in terms of sequences in time and of co-existences in space. Wherever we are dealing with relations of this sort, it is apparent that a knowledge of one term or member serves as a guide and check in the assertion of the existence and character of the other term or member. But moral judgments, it is said, deal with actions which are still to be performed. Consequently, in this case characteristic meaning is found only in the qualities which exist *after* and by means of the judgment. For this reason, moral judgment is thought essentially to transcend anything found in past experience; and so, once more, to try to control a moral judgment through the medium of other judgments is to eliminate its distinctive ethical quality. This notion finds its popular equivalent in the conviction that moral judgments relate to realities where freedom is implicated in such a way that no intellectual control is possible. The judgment is considered to be based, not upon objective facts, but upon arbitrary choice or volition expressed in a certain sort of approval or disapproval.

When generalized, the various statements of the logical gulf between the moral judgment and the scientific reduces itself to an assertion of two antinomies; one, the separation between the universal and the individual; the other, between the intellectual and the practical. And these two antinomies finally reduce themselves to one: Scientific statements refer to *generic conditions* and relations, which are therefore capable of complete and objective statement; ethical judgments refer to an *individual act* which by its very nature transcends objective statement. The ground of separation is that scientific judgment is universal, hence only hypothetical, and hence incapable of relating to acts, while moral judgment is categorical, and thus individualized, and hence refers to acts. The scientific judgment states that where some condition or set of conditions is found, there also is found a specified other condition or set of conditions. The moral judgment states that a certain end has categorical value, and is thus to be realized without any reference whatsoever to antecedent conditions or facts. The scientific judgment states a connection of conditions; the moral judgment states the unconditional claim of an idea to be made real.

THE LOGIC OF MORAL JUDGMENTS [6]

So far as the scientific judgment is identified as an act, all *a priori* reason disappears for drawing a line between the logic of the material of the recognized sciences and that of conduct. We are thus free to proceed, if we can find any positive basis. The recognition that the activity of judging does not exist in general, but is of such a nature as to require reference to an initial point of departure and to a terminal fulfillment, supplies exactly this positive ground. The act of judging is not merely an active experience at large, but one which requires specific motivation. There must be some stimulus which moves to performing this particular sort of act rather than some other. Why engage in that particular kind of activity that we call judging? Conceivably some other activity might be going on—the sawing of wood, the painting of a picture, the cornering of the wheat market, the administering of reproof. There must be something outside the most complete and correct collection of intellectual propositions which induces to engage in the occupation of judging rather than in some other active pursuit. Science furnishes conditions which are to be used in the most effective execution of the judging activity, *if* one means to judge at all. But it presupposes the If. No theoretical system can settle that the individual shall at a given moment judge rather than do something else. Only the whole scheme of conduct as focusing in the interests of an individual can afford that determining stimulus.

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[6] From *Logical Conditions of a Scientific Treatment of Morality,* loc. cit., pp. 125-129.

Not only must a practical motive be found for the use of the organized scientific system, but a similar motive must be found for its correct and adequate use. The logical value of any intellectual proposition, its distinctively logical significance as distinct from existence as mere *ens rationis*, depends upon practical, and ultimately upon moral, considerations. The interest must be of a kind not only to move the individual to judge, but to induce him to judge critically, bringing into use all necessary precautions and all available resources which may insure the maximum probability of truth in the conclusion. The system of science (employing the term "science" to mean an organized intellectual content) is absolutely dependent for logical worth upon a moral interest: the sincere aim to judge truly. Remove such an interest, and the scientific system becomes a purely esthetic object, which may awaken emotional response in virtue of its internal harmony and symmetry, but which has no logical import. If we suppose, once more, that it is a case of identification of typhoid fever, it is the professional, social, and scientific interests of the physician which lead him to take the trouble and pains to get all the data that bear upon the forming of judgment, and to consider with sufficient deliberateness as to bring to bear the necessary instrumentalities of interpretation. The intellectual contents get a logical function only through a specific motive which is outside of them barely as contents, but which is absolutely bound up with them in logical function.

If the use made of scientific resources, of technique of observation and experiment, of systems of classification, etc., in directing the act of judging (and thereby fixing the content of the judgment) depends upon the interest and disposition of the judger, we have only to make such dependence explicit, and the so-called scientific judgment appears definitely as a moral judgment. If the physician is careless and arbitrary because of overanxiety to get his work done, or if he lets his pecuniary needs influence his manner of judgment, we may say that he has failed both logically and morally. Scientifically he has not employed the methods at command for directing his act of judging so as to give it maximum correctness. But the ground for such logical failure lies in his own motive or disposition. The generic propositions or universals of science can take effect, in a word, only through the medium of the habits and impulsive tendencies of the one who judges. They have no *modus operandi* of their own.

The possibility of a distinctively moral quality attaching to an intellectual activity is due to the fact that there is no particular point at which one habit begins and others leave off. If a given habit could become entirely isolated and detached, we might have an act of judging dependent upon a purely intellectual technique, upon a habit of using specialized skill in dealing with certain matters, irrespective of any ethical qualifications. But the principle of the continuum is absolute. Not only through habit does a given psychical attitude expand into a particular case, but every habit in its own operation may directly or indirectly call up any other habit. The term "character" denotes this complex continuum of interactions in its office of influencing final judgment.

Scientific treatment of any subject means command of an apparatus which may be used to control the formation of judgments in all matters pertaining to that subject.

What are the differentiating logical conditions of a scientific treatment of conduct? Every sort of judgment has its own end to reach: and the instrumentalities (the categories and methods used) must vary as the end varies. If in general we conceive the logical nature of scientific technique, of formulæ, universals, etc., to reside in their adaptation to guaranteeing the act of judging in accomplishing a purpose, we are thereby committed to the further proposition that the logical apparatus needed varies as the ends to be reached are diverse. If, then, there is anything typically distinctive in the end which the act of ethical judging has to subserve, there must be equally distinctive features in the logic of its scientific treatment.

The question thus recurs to the characteristic differential features of the ethical judgment as such. These features readily present themselves if we return to those cases of scientific identification in which ethical considerations become explicit. There are cases, we saw, in which the nature of the identification—and its consequent truth or falsity—is *consciously* dependent upon the attitude or disposition of the judger. The term "consciously" differentiates a peculiar type of judgment. In all cases of individual judgment there is an act; and in all cases the act is an expression of motive, and thus of habit, and finally of the whole body of habit or character. But in many cases this implication of character remains a presupposition. It is not necessary to take notice of it. It is part of the practical conditions of making a judgment; but is no part of the logical conditions, and hence is not called upon to enter into a content—a conscious objectification in the judgment. To regard it as a practical instead of a logical condition means that while it is necessary to *any* judgment, the one act of judgment in question requires it no more than any other. It affects all *alike;* and this very impartiality of reference is equivalent to no reference at all as regards the truth or falsity of the particular judgment.

Judging in such cases is controlled by reference to conditions of another quality than those of character; its presented data are judged in terms of objects of the same order or quality as themselves. Not only is there no conscious inclusion of motive and disposition within the content judged, but there is express holding off, inhibition, of all elements proceeding from their judger. From the standpoint of judgments of this type, such elements are regarded as logically merely subjective, and hence as disturbing factors with respect to the attainment of truth. It is no paradox to say that the activity of the agent in the act of judging expresses itself in effort to prevent its activity from having any influence upon the material judged. Accordingly through such judgments "external" objects are determined, the activity of the judger being kept absolutely neutral or indifferent as to its reference. The same idea is expressed by saying that the operation of motive and character may be presupposed, and hence left out of account, when they are so uniform in their exercise that they make no difference with respect to the *particular* object or content judged.

But whenever the implication of character, the operation of habit and motive, is recognized as a factor affecting the quality of the specific object judged, the logical aim makes it necessary to take notice of this fact by making the relationship an explicit element of content in the subject-matter undergoing judgment. When character is not an indifferent or neutral factor, when it qualitatively colors the meaning of the situation which the judger presents to himself, a characteristic feature is introduced into the very object judged; one which is not a mere refinement, homogeneous in kind with facts already given, but one which transforms their significance, because introducing into the very content judged the standard of valuation. In other words, character as a practical condition becomes *logical* when its influence is preferential in effect—when instead of being a uniform and impartial condition of any judgment it is, if left to itself (or unstated) a determinant of *this* content-value of judgment rather than that. Put from the other side, in the "intellectual" judgment, it makes no *difference* to character *what* object is judged, so be it the one judged is judged accurately; while in the moral judgment the nub of the matter is the difference which the determination of the content as this or that effects in character as a necessary condition of judging *qua* judging.

The conscious reference to disposition makes the object an active object, viz., a process defined by certain limits—given facts on one side and the same facts as transformed by agency of a given type on the other. The object judged is active, not "external," because it requires an act of judging, not merely as antecedent, but as a necessary element in its own structure. In judgments of the distinctively intellectual type, the assumption is that such activity as is necessary to effect certain combinations and distinctions will keep itself outside the material judged, retiring as soon as it has done its work in bringing together the elements that belong together and removing those that have no business. But in the ethical judgment the assumption is in the contrary sense: viz., that the situation is made what it is through the attitude which finds expression in the very act of judging. From the strictly logical standpoint (without reference, that is, to overtly moral considerations) the ethical judgment thus has a distinctive aim of its own: it is engaged with judging a subject-matter, a definitive element in whose determination is the attitude or disposition which leads to the act of judging.

It follows immediately that the aim of the ethical judgment may be stated as follows: Its purpose is to construct the act of judgment as itself a complex objective content. It goes back of the judging act as that is employed in distinctively intellectual processes and makes its quality and nature (as distinct from its form—a question for psychology) an object of consideration. Just because character or disposition is involved in the material passed in review and organized in judgment, character is determined by the judgment. This is a fact of tremendous ethical significance; but here its import is not ethical, but logical. It shows that we are dealing, from the strictly logical point of view, with a characteristic type of judgment—that in which the conditions of judging activity are themselves to be objectively determined. The judger is engaged in judging himself; and thereby in so far is fixing the conditions of all further judgments of any type whatsoever. Put in more psychological terms, we may say the judgment realizes, through conscious deliberation and choice, a certain motive hitherto more or less vague and impulsive; or it expresses a habit in such a way as not merely to strengthen it practically, but as to bring to consciousness both its emotional worth and its significance in terms of certain kinds of consequences. But from the logical standpoint we say that the judger is consciously engaged in constructing as an object (and thereby giving objective form a reality to) the controlling condition of every exercise of judgment.

THE CRITERIA OF VALID MORAL CONCEPTS [7]

The ethical judgment is one which effects an absolutely reciprocal determination of the situation judged, and of the character or disposition which is expressed in the act of judging. Any particular moral judgment must necessarily reflect within itself all the characteristics which are essential to moral judgment *überhaupt*. No matter how striking or how unique the material of any particular ethical experience, it is at least an ethical experience; and as such its consideration or interpretation must conform to the conditions involved in the very act of judging. A judgment which institutes the reciprocal determination just described has its own characteristic structure or organization. The work that it has to do gives it certain limiting or defining elements and properties. These constitute the ultimate Terms or Categories of all ethical science. Moreover, since these terms are reflected in every moral experience that is in course of judgment, they do not remain formal or barren, but are instruments of analysis of any concrete situation that is subjected to scientific scrutiny.

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[7] From *Logical Conditions of a Scientific Treatment of Morality,* loc. cit., pp. 129-130.

The distinctively intellectual judgment, that of construing one object in terms of other similar objects, has necessarily its own inherent structure which supplies the ultimate categories of all physical science. Units of space, time, mass, energy, etc., define to us the limiting conditions under which judgments of this type do their work. Now, a type of judgment which determines a situation in terms of character, which is concerned with constructing what may be termed indifferently an active situation or a consciously active agency, has a like logical title to the standpoints and methods—the tools—which are necessary to its task. Ethical discussion is full of such terms: the natural and the spiritual, the sensuous and the ideal, the standard and the right, obligation and duty, freedom and responsibility, are samples.

The discussion and use of these terms suffer, however, from a fundamental difficulty. The terms are generally taken as somehow given ready-made and hence as independent and isolated things. Then theory concerns itself, first, with debating as to whether the categories have validity or not; and, secondly, as to what their specific significance is. The discussion is arbitrary precisely because the categories are not taken as limiting terms; as constituent elements in a logical operation which, having its own task to perform, must have the means or tools necessary for its successful accomplishing. Consequently the primary condition of a scientific treatment of ethics is that the fundamental terms, the intellectual standpoints and instrumentalities, used, be discussed with reference to the position they occupy and the part they play in a judgment of a peculiar type, viz., one which brings about the reciprocal objective determination of an active situation and a psychical disposition.

When the categories receive the fate which is meted out to them in current discussion, when they are taken up in accidental because isolated ways, there is no method of controlling formation of judgment regarding them. Consequently other judgments which depend upon their use are in an increasing measure uncontrolled. The very tools which are necessary in order that more specific judgments may work economically and effectively are only vaguely known as to their own structure and modes of operation. Naturally they are bungled in employ. Because categories are discussed as if they had some ready-made independent meaning, each of its own, there is no check upon the meaning which is assigned to any one of them, and no recognized standard for judging the validity of any.

Only reference to a situation within which the categories emerge and function can furnish the basis for estimation of their value and import. Otherwise the definition of ultimate ethical terms is left to argumentation based upon opinion, an opinion which snatches at some of the more obvious features of the situation (and thereby may always possess some measure of truth), and which, failing to grasp the situation as a whole, fails to grasp the exact significance of its characteristic terms. Discussion, for instance, about what constitutes the ethical standard—whether conduciveness to happiness, or approximation to perfection of being—must be relatively futile, until there is some method of determining by reference to the logical necessity of the case what *anything* must be and mean in order to be a standard at all.

We lack a definition of standard in terms of the essential conditions of the ethical judgment and situation. Such a definition of standard would not indeed give us an off-hand view of the makeup of moral value such as might be utilized for forming moral precepts, but it will set before us certain conditions which any candidate for the office of moral standard must be capable of fulfilling; and will thereby serve as an instrument in criticizing the various claimants for the position of standard, whether these offer themselves in generic theory or in the affairs of concrete conduct.

Similarly, theorists have been attempting to tell what the ideal of man is, what is *summum bonum*, what is man's duty, what are his responsibilities, to prove that he is possessed or not possessed of freedom, without any regulated way of defining the content of the terms "ideal," "good," "duty," etc. If these terms have any verifiable proper meaning of their own, it is as limiting traits of that type of judgment which institutes the reciprocal identification of psychical attitude in judging and subject-matter judged. An analysis of the makeup of judgment of this type must reveal all the distinctions which have claim to the title of fundamental ethical categories. Whatever element of meaning reveals itself as a constituent part of such a judgment has all the claim to validity which moral experience itself possesses; a term which is not exhibited within such an analysis has no title to validity. The differential meaning of any one of the terms is dependent upon the particular part it plays in the development and termination of judgments of this sort.

THE DEPENDENCE OF A SCIENCE OF MORALS UPON PSYCHOLOGY[8]

If it be true that a moral judgment is one in which the content finally affirmed is affected at every point by the disposition of the judger (since he interprets the situation that confronts him in terms of his own attitude), it follows at once that one portion of the generic theory necessary for adequate control of individual moral judgments will consist in an objective analysis of disposition as affecting action through the medium of judgment. Everyone knows, as simple matter of fact, that a large part of existing treatises on morals are filled with discussions concerning desirable and undesirable traits of character—virtues and vices; with conscience as a function of character; with discussions of intention, motive, choice, as expressions of, and as ways of forming, character. Moreover, a concrete discussion of freedom, responsibility, etc., is carried on as a problem of the relationship of character to the media of action. The reciprocal determination, already set forth, of character and the content judged shows that such discussions are not mere practical desiderata, nor yet a mere clearing up of incidental points, but integral portions of any adequate ethical theory.

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[8] From *Logical Conditions of a Scientific Treatment of Morality*, loc. cit., pp. 131-134.

If character or disposition reflects itself at every point in the constitution of the content finally set forth in judgment, it is clear that control of such judgment depends upon ability to state, in universalized form, the related elements constituting character an objective fact. Our particular judgments regarding physical things are controlled only in so far as we have, independent of and prior to any particular emergency in experience, a knowledge of certain conditions to be observed in judging every physical object as physical. It is through reference to such laws, or statements of connected conditions, that we get the impartiality or objectivity which enables us to judge in a particular crisis unswerved by purely immediate considerations. We get away from the coercive immediacy of the experience, and into a position to look at it clearly and thoroughly. Since character is a fact entering into any moral judgment passed, ability of control depends upon our power to state character in terms of generic relation of conditions, which conditions are detachable from the pressure of circumstance in the particular case. Psychological analysis is the instrument by which character is transformed from its absorption in the values of immediate experience into an objective, scientific fact. It is, indeed, a statement of experience in terms of its modes of control of its own evolving.

Even popular consciousness is aware of many ways in which psychical dispositions modify judgment in a moral sense; and is accustomed to take advantage of its knowledge to regulate moral judgments. A score of proverbs could be collected expressing ways in which psychological attitudes affect moral valuation. The ideas in such statements as the following are commonplaces to the plain man: Habit, wont, and use dull the power of observation; passion blinds and confuses the power of reflection; self-interest makes the judger alert to aspects of the situation judged; impulse hurries the mind on uncritically to a conclusion; ends, ideals, arouse, when contemplated, emotions that tend to fill consciousness, and which as they swell, first restrict and then eliminate power of judgment. Such statements, which might be indefinitely increased, are not only popularly known, but are commonly used in formation of a kind of hygiene of moral action.

Psychology proper differs from the aggregate of such statements through setting forth *how* various dispositions operate in bringing about the effects attributed to them. Just what are the various distinguishable psychical attitudes and tendencies? How do they hang together? How does one call forth or preclude another? We need an inventory of the different characteristic dispositions; and an account of how each is connected, both in the way of stimulation and inhibition, with every other. Psychological analysis answers this need. While it can answer this need only through development of scientific constructs which present themselves in experience only as results of the psychological examination, yet it is true that the typical attitudes and dispositions are familiar as functions of every-day experience.

It is equally true that even the most atomic psychology employs generalized statements about the ways in which certain "states of consciousness" or elements (the constructs referred to) regularly introduce certain other "states." The theory of association is, indeed, just a generalization concerning an objective sequence of elements which reflects to the psychologist the sequence of attitudes or dispositions which are found in the immediate course of experience. In particular the sensationalists not only admit but claim that the association of other states of consciousness with states of pleasure and pain have uniform tendencies which may be reduced to universal propositions; and which may be employed to formulate principles exhibited in all conduct.

If such is the case with psychological atomism, every step toward recognition of a more organized, or inherently complex, mental structure multiples the number and range of possible propositions relating to connection of conditions among psychic states—statements which, if true at all, have exactly the same logical validity that is possessed by any "physical law." And in so far as these "states" are symbols of the attitudes and habits which operate in our immediate experience, every such proposition is at once translatable into one regarding the way in which character is constituted—just the type of generic statement required by a scientific ethics.

Psychology of course does not aim at reinstating the immediate experience of the individual; nor does it aim at describing that experience in its immediate values, whether esthetic, social or ethical. It reduces the immediate experience to a series of dispositions, attitudes, or states which are taken as either conditions or signatures of life-experience. It is not the full experience-of-seeing-a-tree it is concerned with, but the experience reduced by abstraction to an attitude or state of perception; it is not the concrete getting angry, with all its personal and social implications, but anger as one species of a generic psychic disposition known as emotion. It is not concerned with a concrete judgment as such—to say nothing of moral judgment. But psychological analysis finds in experience the typical attitudes it deals with, and only abstracts them so that they may be objectively stated.

Every statement of moral theory which purports to relate to our moral consciousness sets forth relations whose truth must ultimately be tested through psychological analysis—just as every judgment regarding a specific physical phenomenon must finally satisfy certain generic conditions of physical reality set forth in physical analysis.

Psychological analysis does not, for example, set before us an end or ideal actually experienced, whether moral or otherwise. It does not purport to tell us *what* the end or ideal is. But psychological analysis shows us just what forming and entertaining an end means. Psychological analysis abstracts from the concrete makeup of an end, as that is found as matter of direct experience, and because of (not in spite of) that abstraction sets before us having-an-end in terms of its conditions and its effects, that is, in terms of taking other characteristic attitudes which are present in other experiences.

Hence purely psychologic propositions are indispensable to any concrete moral theory. The logical analysis of the process of moral judgment, setting forth its inherent organization or structure with reference to the peculiar logical function it has to accomplish, furnishes the categories or limiting terms of ethical science, and supplies their formal meaning, their definition. But the logical category, say, of end or ideal becomes concrete only as some individual has actually experience of and with ends—and this involves the act or attitude of forming and entertaining them. So the category of standard becomes more than a possible intellectual tool only as some individual actually engages in an experience concerned with right and wrong, and which, when viewed objectively, is regarded as a judgment.

The entertaining of ends, the adjudging of values—such acts are character-phenomena. Considered in abstraction from their immediate matter in experience, viz., just as acts, states, or dispositions, they are character-phenomena as these present themselves to psychological analysis. Even to consider any experience, or any phase of an experience, an ideal is to reflect upon that experience; it is to abstract and to classify. It involves passing judgment *upon* an experience; something beyond the concrete experiencing. It is, as far as it goes, psychological analysis—that is, it is a process of exactly the same order and implying just the same distinctions and terms as are found in psychological science. But the latter, in making abstraction and classification conscious processes, enables us to control them, instead of merely indulging in them.

Hence it is futile to insist that psychology cannot "give" the moral ideal, and that consequently there must be recourse to transcendental considerations—to metaphysics. Metaphysics, in the sense of logical analysis of that type of judgment which determines the agent and the content of judgment in complete reciprocity to each other, may "give" the ideal—that is, it may show how the form or category of ideal is a constitutive element in this type of judgment, and hence has whatever of validity attaches to this mode of judging. But such a logical analysis is far from transcendental metaphysics; and in any case we thus obtain only the category of ideal as a standpoint or terminus of a *possible* moral judgment.

There is no question here of ideal as immediately experienced. Only living, not metaphysics any more than psychology, can "give" an ideal in this sense. But when ethical theory makes statements regarding the importance of ideals for character and conduct, when it lays stress upon the significance of this, rather than that, kind of ideal, it is engaged in setting forth universal relations of conditions; and there is absolutely no way of testing the validity of such statements with respect to their claim of generality or objectivity save by an analysis of psychic dispositions which shows what is meant by having-an-ideal in terms of its antecedents and consequences. If any general statement whatsoever can be made about ideals, it is because the psychic attitude corresponding to conceiving an ideal can be abstracted, and placed in a certain connection with attitudes which represent abstracts of other experiences.

To have an ideal, to form and entertain one, must be a fact, or else ideals are absolute non-existence and nonsense. To discuss what it is to have an ideal is to engage in psychological analysis. If the having-an-ideal can be stated in terms of sequence with other similar attitudes, then we have a psychological generic statement (or law) which can be employed as a tool of analysis in reflecting upon concrete moral experiences, just as the "law" of falling bodies is of use in controlling our judgment of pile-drivers, the trajectory of shells, etc. The possibility of *generalized propositions* regarding any character-phenomenon stands and falls with the possibility of psychological analysis revealing regular association or co-ordination of certain tendencies, habits or dispositions with one another. Hence the continued reiteration that psychology as a natural science deals only with facts, while ethics is concerned with values, norms, ideals which *ought* to be whether they exist or no, is either aside from the point, or else proves the impossibility of making any general statements, metaphysical as well as practical and scientific, about such matters.

THE DEPENDENCE OF A SCIENCE OF MORALS UPON SOCIAL SCIENCE[9]

Adequate control of an act as determining a content involves the possibility of making character an object of scientific analysis—of stating it as a system of related conditions or an object complete in itself—a universal. We have now to recognize the converse, viz., that we can control the judgment of the act, hence of character as expressed in act, only as we have a method of analyzing the *content* in itself—that is, in abstraction from its bearings upon action.

The ethical problem needs to be approached from the point of view of the act as modifying the content, and of the content as modifying the act; so that, on one hand, we require, prior to a particular moral crisis, a statement in universal terms of the mechanism of the attitudes and dispositions which determine judgment about action; while, on the other hand, we need a similar prior analysis and classification of the situations which call forth such judgment. Which portion of the scientific apparatus we bring most prominently into play in any given case depends upon the circumstances of that case as influencing the probable source of error.

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[9] From "Logical Conditions of a Scientific Treatment of Morality," loc. cit., pp. 134-137.

If the situation or scene of action (by which we mean the conditions which provoke or stimulate the act of moral judging) is fairly familiar, we may assume that the source of error in judgment lies in the disposition which is back of the experience—that if we can only secure the right motive on the part of the judger, the judgment itself will be correct. In other cases circumstances are reversed. We can fairly presuppose or take for granted a right attitude on the part of the judger; the problematic factor has to do with the interpretation of the situation. In this case what is needed for right judgment is a satisfactory knowledge of the "facts of the case." Given that, the existing motive will take care of the rest. It is this latter aspect of the matter that we now have to discuss.

The only way in which the agent can judge himself as an agent, and thereby control his act—that is, conceive of himself as the one who is to do a certain thing—is by finding out the situation which puts upon him the necessity of judging it in order that he may decide upon a certain course of action. As soon as a conclusion is reached as to the nature of the scene of action, a conclusion is also reached as to what the agent is to do, and this decides in turn what sort of an agent he is to be. The merely intellectual judgment may be marked off as one in which a content or object is fixed in terms of some other object or content, homogeneous in worth, and where accordingly it is a necessary part of the procedure to suppress participation in judging of traits which proceed from, or refer to, the disposition of the judger. But judgments which are ethical (not merely intellectual) make no such abstraction. They expressly and positively include the participation of the judger in the content judged and of the object judged in the determination of the judger. In other words, the object judged or situation constructed in moral judgment is not an external object, cold, remote, and indifferent, but is most uniquely, intimately, and completely the agent's own object, or is the agent *as object.*

Such being the case, what is required in order to form such a judgment of the scene or conditions of action as will facilitate the most adequate possible construing of the agent? I reply: A social science which will analyze a content as a combination of elements in the same way that psychological analysis determines an act as a set of attitudes. It is assumed that the situation which calls forth distinctively moral judgment is a social situation, which accordingly can be adequately described only through methods of sociological analysis. I am aware that (even admitting the necessity of some sort of scientific interpretation of the scene of action) it is something of a jump to say that such science must be sociological in character. The logical gap could be covered only by carrying the discussion of the categories of moral judgment to the point where their social value would explicitly show itself. Such analysis is apart from my present purpose. Here I need only recur to the proposition of the reciprocal determination, in the ethical judgment, of the judger and the content judged, and suggest that this idea requires in its logical development the conclusion that, since the judger is personal, the content judged must ultimately be personal too—so that the moral judgment really institutes a relationship between persons, relationship between persons being what we mean by "social."

But in any case, some way of getting an objective statement of the situation, a statement in terms of connection of conditions, is necessary. Certain descriptive sciences are necessary and in many cases no one would deny that elements of associated life enter into the facts to be described. But even if it be admitted that the scene is social, this characterization does not exhaust the description. Any scene of action which is social is *also* cosmic or physical. It is also biological. Hence the absolute impossibility of ruling out the physical and biological sciences from bearing upon ethical science. If ethical theory require, as one of its necessary conditions, ability to describe in terms of itself the situation which demands moral judgment, any proposition, whether of mechanics, geography, physiology, or history, which facilitates and guarantees the adequacy and truth of the description, becomes in virtue of that fact an important auxiliary of ethical science.

In other words, the postulate of moral science is the continuity of scientific judgment. This proposition is denied by both the materialistic and transcendental schools of metaphysics. The transcendental school draws such a fixed line between the region of moral and of cosmic values that by no possibility can propositions which refer to the latter become auxiliary or instrumental with respect to the former. The fact that advance of physical and biological science so profoundly modifies moral problems, and hence moral judgments, and hence once more moral values, may serve as an argument against transcendental ethics—since, according to the latter, such obvious facts would be impossibilities. Materialism denies equally the principle of continuity of judgment. It confuses continuity of method, the possibility of using a general statement regarding one object as a tool in the determination of some other, with immediate identity of subject-matter. Instead of recognizing the continuity of ethical with other forms of experience, it wipes out ethical experience by assimilating it not simply with reference to logical method, but in its own ontological structure, to another form of objects defined in judgment—that is, the physical form.

If it is once recognized that *all* scientific judgments, physical as well as ethical, are ultimately concerned with getting experiences stated in objective (that is, universal) terms for the sake of the direction of further experience, there will, on the one hand, be no hesitation in using any sort of statement that can be of use in the formation of other judgments, whatever be their topic or reference; and, on the other hand, there will be no thought of trying to explain away the *distinctive* traits of any type of experience. Since conscious life is continuous, the possibility of using any one mode of experience to assist in the formation of any other is the ultimate postulate of *all* science—non-ethical and ethical alike. And this possibility of use, of application, of instrumental service, makes it possible and necessary to employ materialistic science in the construction of ethical theory, and also protects in this application ethical values from deterioration and dissolution.

THE FUNCTION AND LIMITS OF SCIENCE IN MORALS[10]

In conclusion, it may avoid misapprehension if I say that the considerations set forth do not involve any pedantic assumption regarding the necessity of using science, or logical control, in any particular instance of moral experience. The larger part, infinitely the larger part, of our concrete contact with physical nature takes place without conscious reference to the methods, or even the results, of physical science. Yet no one questions the fundamental importance of physical science. This importance discovers itself in two ways:

First, when we come to peculiarly difficult problems (whether of interpretation or of inventive construction) physical science puts us in possession of tools of conscious analysis and of synthesis. It enables us to economize our time and effort, and to proceed with the maximum probability of success to solution of the problem which confronts us. This use is conscious and deliberate. It involves the critical application of the technique and already established conclusions of science to cases of such complexity and perplexity, that they would remain unsolved and undealt with, were it not for scientific resources.

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[10] From "Logical Conditions of a Scientific Treatment of Morality," loc. cit., pp. 137-138.

In the second place, physical science has a wide sphere of application which involves no conscious reference whatsoever. Previous scientific methods and investigations have taken effect in our own mental habits and in the material dealt with. Our unconscious ways of apprehending, of interpreting, of deliberating, are saturated with products of prior conscious critical science. We thus get the benefit, in our intellectual commerce with particular situations, of scientific operations which we have forgotten, and even of those which we individually have never performed. Science has become incarnate in our immediate attitude toward the world about us, and is embodied in that world itself. Every time that we solve a difficulty by sending a telegram, crossing a bridge, lighting the gas, boarding a railroad train, consulting a thermometer, we are controlling the formation of a judgment by use of so much precipitated and condensed science. Science has pre-formed, in many of its features, the situation with reference to which we have to judge; and it is this objective delimitation and structural reinforcement which, answering at every point to the conformation of habit, most assist intelligence in the details of its behavior.

There is every reason to suppose that the analogy holds with reference to a science of conduct. Such a science can be built up only through reference to cases which at the outset need conscious critical direction in judgment. We need to know what the social situation is in which we find ourselves required to act, so that we may know what it is right to do. We need to know what is the effect of some psychical disposition upon our way of looking at life and thereby upon our conduct.

Through clearing up the social situation, through making objective to ourselves our own motives and their consequences, we build up generic propositions: statements of experience as a connection of conditions, that is, in the form of objects. Such statements are used and applied in dealing with further problems. Gradually their use becomes more and more habitual. The "theory" becomes a part of our psychical apparatus. The social situation takes on a certain form or organization. It is pre-classified as of a certain sort, as of a certain genus and even species of this sort; the only question which remains is discrimination of the particular variety. Again, we get into the habit of taking into account certain sources of error in our own disposition as these affect our judgments of behavior, and thereby bring them sufficiently under control so that the need of conscious reference to their intellectual formulation diminishes. As physical science has brought about an organization of the physical world along with an organization of practical habits of dealing with that world, so ethical science will effect an organization of the social world and a corresponding organization of the psychical habits through which the individual relates himself to it. With this clearing up of the field and organs of moral action, conscious recourse to theory will, as in physical cases, limit itself to problems of unusual perplexity and to constructions of a large degree of novelty.

CHAPTER TWELVE

HUMAN BEHAVIOR AND MORAL IDEALS

THE ORIGIN AND NATURE OF MORAL IDEALS[1]

OUR problem now concerns the nature of ends, that is ends-in-view or aims. The essential elements in the problem have already been stated. It has been pointed out that the ends, objectives, of conduct are those foreseen consequences which influence present deliberation and which finally bring it to rest by furnishing an adequate stimulus to overt action. Consequently ends arise and function within action. They are not, as current theories too often imply, things lying beyond activity at which the latter is directed. They are not strictly speaking ends or termini of action at all. They are terminals of deliberation, and so turning points *in* activity.

Many opposed moral theories agree however in placing ends beyond action, although they differ in their notions of what the ends are. The utilitarian sets up pleasure as such an outside-and-beyond, as something necessary to induce action and in which it terminates. Many harsh critics of utilitarianism have however agreed that there is some end in which action terminates, a final goal. They have denied that pleasure in such an outside aim, and put perfection or self-realization in its place. The entire popular notion of "ideals" is infected with this conception of some fixed end beyond activity at which we should aim. According to this view ends-in-themselves come before aims. We have a moral aim only as our purpose coincides with some end-in-itself. We *ought* to aim at the latter whether we actually do or not.

When men believed that fixed ends existed for all normal changes in nature, the conception of similar ends for men was but a special case of a general belief. If the changes in a tree from acorn to full-grown oak were regulated by an end which was somehow immanent or potential in all the less perfect forms, and if change was simply the effort to realize a perfect or complete form, then the acceptance of a like view for human conduct was consonant with the rest of what passed for science. Such a view, consistent and systematic, was foisted by Aristotle upon western culture and endured for two thousand years.

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[1] From *Human Nature and Conduct*, pp. 223-237.

When the notion was expelled from natural science by the intellectual revolution of the seventeenth century, logically it should also have disappeared from the theory of human action. But man is not logical and his intellectual history is a record of mental reserves and compromises. He hangs on to what he can in his old beliefs even when he is compelled to surrender their logical basis. So the doctrine of fixed ends-in-themselves at which human acts are—or should be—directed and by which they are regulated if they are regulated at all persisted in morals, and was made the cornerstone of orthodox moral theory. The immediate effect was to dislocate moral from natural science, to divide man's world as it never had been divided in prior culture. One point of view, one method and spirit animated inquiry into natural occurrences; a radically opposite set of ideas prevailed about man's affairs. Completion of the scientific change begun in the seventeenth century thus depends upon a revision of the current notion of ends of action as fixed limits and conclusions.

In fact, ends are ends-in-view or aims. They arise out of natural effects or consequences which in the beginning are hit upon, stumbled upon so far as any purpose is concerned. Men *like* some of the consequences and *dislike* others. Henceforth (or till attraction and repulsion alter) attaining or averting similar consequences are aims or ends. These consequences constitute the meaning and value of an activity as it comes under deliberation. Meantime of course imagination is busy. Old consequences are enhanced, recombined, modified in imagination. Invention operates. Actual consequences, that is effects which have happened in the past, become possible future consequences of acts still to be performed. This operation of imaginative thought complicates the relation of ends to activity, but it does not alter the substantial fact: Ends are foreseen consequences which arise in the course of activity and which are employed to give activity added meaning and to direct its further course. They are in no sense ends *of* action. In being ends of *deliberation* they are redirecting pivots *in* action.

Men shoot and throw. At first this is done as an "instinctive" or natural reaction to some situation. The result when it is observed gives a new meaning to the activity. Henceforth men in throwing and shooting think of it in terms of its outcome; they act intelligently or have an end. Liking the activity in its acquired meaning, they not only "take aim" when they throw instead of throwing at random, but they find or make targets at which to aim. That is the origin and nature of "goals" of action. They are ways of defining and deepening the meaning of activity. Having an end or aim is thus a characteristic of *present* activity. It is the means by which an activity becomes adapted when otherwise it would be blind and disorderly, or by which it gets meaning when otherwise it would be mechanical. In a strict sense an end-in-view is a *means* in present action; present action is not a means to a remote end. Men do not shoot because targets exist, but they set up targets in order that throwing and shooting may be more effective and significant.

A mariner does not sail towards the stars, but by noting the stars he is aided in conducting his present activity of sailing. A port or harbor is his objective, but only in the sense of *reaching* it, not of taking possession of it. The harbor stands in his thought as a significant point at which his activity will need re-direction. Activity will not cease when the port is attained, but merely the *present direction* of activity. The port is as truly the beginning of another mode of activity as it is the termination of the present one. The only reason we ignore this fact is because it is empirically taken for granted. We know without thinking that our "ends" are perforce beginnings. But theories of ends and ideals have converted a theoretical ignoring which is equivalent to practical acknowledgment into an intellectual denial, and have thereby confused and perverted the nature of ends.

Even the most important among all the consequences of an act is not necessarily its aim. Results which are objectively most important may not even be thought of at all; ordinarily a man does not think in connection with exercise of his profession that it will sustain him and his family in existence. The end-thought-of is uniquely important, but it is indispensable to state the respect in which it is important. It gives the decisive clew to the act to be performed under the existing circumstances. It is that particular foreseen object that will stimulate the act which relieves existing troubles, straightens out existing entanglements. In a temporary annoyance, even if only that caused by the singing of a mosquito, the thought of that which gives relief may engross the mind in spite of consequences much more important, objectively speaking. Moralists have deplored such facts as evidence of levity. But the remedy, if a remedy be needed, is not found in insisting upon the importance of ends in general. It is found in a change of the dispositions which make things either immediately troublesome or tolerable or agreeable.

When ends are regarded as literally ends to action rather than as directive stimuli to present choice they are frozen and isolated. It makes no difference whether the "end" is "natural" good like health or a "moral" good like honesty. Set up as complete and exclusive, as demanding and justifying action as a means to itself, it leads to narrowness; in extreme cases fanaticism, inconsiderateness, arrogance and hypocrisy. Joshua's reputed success in getting the sun to stand still to serve his desire is recognized to have involved a miracle. But moral theorists constantly assume that the continuous course of events can be arrested at the point of a particular object; that men can plunge with their own desires into the unceasing flow of changes, and seize upon some object as their end irrespective of everything else. The use of intelligence to discover the object that will best operate as a releasing and unifying stimulus in the existing situation is discounted. One reminds one's self that one's end is justice or charity or professional achievement or putting over a deal for a needed public improvement, and further questionings and qualms are stilled.

It is customary to suppose that such methods merely ignore the question of the morality of the means which are used to secure the end desired. Common sense revolts against the maxim, conveniently laid off upon Jesuits or other far-away people, that the end justifies the means. There is no incorrectness in saying that the question of means employed is overlooked in such cases. But analysis would go further if it were also pointed out that overlooking means is only a device for failing to note those ends, or consequences, which, if they were noted would be seen to be so evil that action would be estopped. Certainly nothing can justify or condemn means except ends, results. But we have to include consequences impartially. Even admitting that lying will save a man's soul, whatever that may mean, it would still be true that lying will have other consequences, namely, the usual consequences that follow from tampering with good faith and that lead lying to be condemned.

It is wilful folly to fasten upon some single end or consequence which is liked, and permit the view of that to blot from perception all other undesired and undesirable consequences. It is like supposing that when a finger held close to the eye covers up a distant mountain the finger is really larger than the mountain. Not *the* end—in the singular—justifies the means; for there is no such thing as the single all-important end. To suppose that there is such an end is like working over again, in behalf of our private wishes, the miracle of Joshua in arresting the course of nature. It is not possible adequately to characterize the presumption, the falsity and the deliberate perversion of intelligence involved in refusal to note the plural effects that flow from any act, a refusal adopted in order that we may justify an act by picking out that one consequence which will enable us to do what we wish to do and for which we feel the need of justification.

Yet this assumption is continually made. It is made by implication in the current view of purposes or ends-in-view as objects in themselves, instead of means to unification and liberation of present conflicting, confused habits and impulses. There is something almost sinister in the desire to label the doctrine that the end justifies the means with the name of some one obnoxious school. Politicians, especially if they have to do with the foreign affairs of a nation and are called statesmen, almost uniformly act upon the doctrine that the welfare of their own country justifies any measure irrespective of all the demoralization it works. Captains of industry, great executives in all lines, usually work upon this plan. But they are not the original offenders by any means. Every man works upon it so far as he permits himself to become so absorbed in one aspect of what he is doing that he loses a view of its varied consequences, hynotizing his attention by consideration of just those consequences which in the abstract are desirable and slurring over other consequences equally real. Every man works upon this principle who becomes over-interested in any cause or project, and who uses its desirability in the abstract to justify himself in employing any means that will assist him in arriving, ignoring all the collateral "ends" of his behavior.

It is frequently pointed out that there is a type of executive-man whose conduct seems to be as non-moral as the action of the forces of nature. We all tend to relapse into this non-moral condition whenever we want any one thing intensely. In general, the identification of the end prominent in conscious desire and effort with *the* end is part of the technique of avoiding a reasonable survey of consequences. The survey is avoided because of a subconscious recognition that it would reveal desire in its true worth and thus preclude action to satisfy it—or at all events give us an uneasy conscience in striving to realize it. Thus the doctrine of the isolated, complete or fixed end limits intelligent examination, encourages insincerity, and puts a pseudo-stamp of moral justification upon success at any price.

Moralistic persons are given to escaping this evil by falling into another pit. They deny that consequences have anything at all to do with the morality of acts. Not ends but motives they say justify or condemn acts. The thing to do, accordingly, is to cultivate certain motives or dispositions, benevolence, purity, love of perfection, loyalty. The denial of consequences thus turns out formal, verbal. In reality a consequence is set up at which to aim, only it is a subjective consequence. "Meaning well" is selected as *the* consequence or end to be cultivated at all hazards, an end which is all-justifying and to which everything else is offered up in sacrifice. The result is a sentimental futile complacency rather than the brutal efficiency of the executive. But the root of both evils is the same. One man selects some external consequence, the other man a state of internal feeling, to serve as the end. The doctrine of meaning well as *the* end is if anything the more contemptible of the two, for it shrinks from accepting any responsibility for actual results. It is negative, self-protective and sloppy. It lends itself to complete self-deception.

Why have men become so attached to fixed, external ends? Why is it not universally recognized that an end is a device of intelligence in guiding action, instrumental to freeing and harmonizing troubled and divided tendencies? The answer is virtually contained in what was earlier said about rigid habits and their effect upon intelligence. Ends are, in fact, literally endless, forever coming into existence as new activities occasion new consequences. "Endless ends" is a way of saying that there are no ends—that is no fixed self-enclosed finalities. While however we cannot actually prevent change from occurring we can and do regard it as evil. We strive to retain action in ditches already dug. We regard novelties as dangerous, experiments as illicit and deviations as forbidden.

Fixed and separate ends reflect a projection of our own fixed and non-interacting compartmental habits. We see only consequences which correspond to our habitual courses. As we have said, men did not begin to shoot because there were ready-made targets to aim at. They made things into targets by shooting at them, and then made special targets to make shooting more significantly interesting. But if generation after generation were shown targets they had had no part in constructing, if bows and arrows were thrust into their hands, and pressure were brought to bear upon them to keep them shooting in season and out, some wearied soul would soon propound to willing listeners the theory that shooting was unnatural, that man was naturally wholly at rest, and that targets existed in order that men might be forced to be active; that the duty of shooting and the virtue of hitting are externally imposed and fostered, and that otherwise there would be no such thing as a shooting-activity—that is, morality.

The doctrine of fixed ends not only diverts attention from examination of consequences and the intelligent creation of purpose, but, since means and ends are two ways of regarding the same actuality, it also renders men careless in their inspection of existing conditions. An aim not framed on the basis of a survey of those present conditions which are to be employed as means of its realization simply throws us back upon past habits. We then do not do what we intended to do but what we have got used to doing, or else we thrash about in a blind ineffectual way. The result is failure. Discouragement follows, assuaged perhaps by the thought that in any case the end is too ideal, too noble and remote, to be capable of realization. We fall back on the consoling thought that our moral ideals are too good for this world and that we must accustom ourselves to a gap between aim and execution. Actual life is then thought of as a compromise with the best, an enforced second or third best, a dreary exile from our true home in the ideal, or a temporary period of troubled probation to be followed by a period of unending attainment and peace. At the same time, as has been repeatedly pointed out, persons of a more practical turn of mind accept the world "as it is," that is as past customs have made it to be, and consider what advantages for themselves may be extracted from it. They form aims on the basis of existing habits of life which may be turned to their own private account. They employ intelligence in framing ends and selecting and arranging means. But intelligence is confined to manipulation; it does not extend to construction. It is the intelligence of the politician, administrator and professional executive—the kind of intelligence which has given a bad meaning to a word that ought to have a fine meaning, opportunism. For the highest task of intelligence is to grasp and realize genuine opportunity, possibility.

Roughly speaking, the course of forming aims is as follows. The beginning is with a wish, an emotional reaction against the present state of things and a hope for something different. Action fails to connect satisfactorily with surrounding conditions. Thrown back upon itself, it projects itself in an imagination of a scene which if it were present would afford satisfaction. This picture is often called an aim, more often an ideal. But in itself it is a fancy which may be only a phantasy, a dream, a castle in the air. In itself it is a romantic embellishment of the present; at its best it is material for poetry or the novel. Its natural home is not in the future but in the dim past or in some distant and supposedly better part of the present world. Every such idealized object is suggested by something actually experienced, as the flight of birds suggests the liberation of human beings from the restrictions of slow locomotion on dull earth. It becomes an aim or end only when it is worked out in terms of concrete conditions available for its realization, that is in terms of "means."

This transformation depends upon study of the conditions which generate or make possible the fact observed to exist already. The fancy of the delight of moving at will through the air became an actuality only after men carefully studied the way in which a bird although heavier than air actually sustains itself in air. A fancy becomes an aim, in short, when some past sequence of known cause-and-effect is projected into the future, and when by assembling its causal conditions we strive to generate a like result. We have to fall back upon what has already happened naturally without design, and study it to see *how* it happened, which is what is meant by causation. This knowledge joined to wish creates a purpose. Many men have doubtless dreamed of ability to have light in darkness without the trouble of oil, lamps and friction. Glow-worms, lightning, the sparks of cut electric conductors suggest such a possibility. But the picture remained a dream until an Edison studied all that could be found out about such casual phenomena of light, and then set to work to search out and gather together the means for reproducing their operation.

The great trouble with what passes for moral ends and ideals is that they do not get beyond the stage of fancy of something agreeable and desirable based upon an emotional wish; very often, at that, not even an original wish, but the wish of some leader which has been conventionalized and transmitted through channels of authority. Every gain in natural science makes possible new aims. That is, the discovery of how things *do* occur makes it possible to conceive of their happening at will, and gives us a start on selecting and combining the conditions, the means, to command their happening. In technical matters, this lesson has been fairly well learned. But in moral matters, men still largely neglect the need of studying the way in which results similar to those which we desire actually happen. Mechanism is despised as of importance only in low material things. The consequent divorce of moral ends from scientific study of natural events renders the former impotent wishes, compensatory dreams in consciousness. In *fact* ends or consequences are still determined by fixed habit and the force of circumstance. The evils of idle dreaming and of routine are experienced in conjunction. "Idealism" must indeed come first—the imagination of some better state generated by desire. But unless ideals are to be dreams and idealism a synonym for romanticism and phantasy-building, there must be a most realistic study of actual conditions and of the mode or law of natural events, in order to give the imagined or ideal object definite form and solid substance—to give it, in short, practicality and constitute it a working end.

The acceptance of fixed ends in themselves is an aspect of man's devotion to an ideal of certainty. This affection was inevitably cherished as long as men believed that the highest things in physical nature are at rest, and that science is possible only by grasping immutable forms and species: in other words, for much the greater part of the intellectual history of mankind. Only reckless sceptics would have dared entertain any idea of ends except as fixed in themselves as long as the whole structure of science was erected upon the immobile. Behind however the conception of fixity whether in science or morals lay adherence to certainty of "truth," a clinging to something fixed, born of fear of the new and of attachment to possessions. When the classicist condemns concession to impulse and holds up to admiration the patterns tested in tradition, he little suspects how much he is himself affected by unavowed impulses—timidity which makes him cling to authority, conceit which moves him to be himself the authority who speaks in the name of authority, possessive impulse which fears to risk acquisition in new adventures. Love of certainty is a demand for guarantees in advance of action. Ignoring the fact that truth can be bought only by the adventure of experiment, dogmatism turns truth into an insurance company. Fixed ends upon one side and fixed "principles"—that is authoritative rules—on the other, are props for a feeling of safety, the refuge of the timid and the means by which the bold prey upon the timid.

MORALITY IS GROWTH IN PRESENT MEANING [2]

When we observe that morals is at home wherever considerations of the worse and better are involved, we are committed to noting that morality is a continuing process not a fixed achievement. Morals means growth of conduct in meaning; at least it means that kind of expansion in meaning which is consequent upon observations of the conditions and outcome of conduct. It is all one with growing. Growing and growth are the same fact expanded in actuality or telescoped in thought. In the largest sense of the word, morals is education. It is learning the meaning of what we are about and employing that meaning in action. The good, satisfaction, "end," of growth of present action in shades and scope of meaning is the only good within our control, and the only one, accordingly, for which responsibility exists. The rest is luck, fortune. And the tragedy of the moral notions most insisted upon by the morally self-conscious is the relegation of the only good which can fully engage thought, namely present meaning of action, to the rank of an inci-

[2] From *Human Nature and Conduct*, pp. 280-281; 283-284; 210; 290-293.

dent of a remote good, whether that future good be defined as pleasure, or perfection, or salvation, or attainment of virtuous character.

"Present" activity is not a sharp narrow knife-blade in time. The present is complex, containing within itself a multitude of habits and impulses. It is enduring, a course of action, a process including memory, observation and foresight, a pressure forward, a glance backward and a look outward. It is of *moral* moment because it marks a transition in the direction of breadth and clarity of action or in that of triviality and confusion.

A business man proceeds by comparing to-day's liabilities and assets with yesterday's, and projects plans for to-morrow by a study of the movement thus indicated in conjunction with study of the conditions of the environment now existing. It is not otherwise with the business of living. The future is a projection of the subject-matter of the present, a projection which is not arbitrary in the extent in which it divines the movement of the moving present. The physician is lost who would guide his activities of healing by building up a picture of perfect health, the same for all and in its nature complete and self-enclosed once for all. He employs what he has discovered about actual cases of good health and ill health and their causes to investigate the present ailing individual, so as to further his recovering; recovering, an intrinsic and living process rather than recovery, which is comparative and static. Moral theories, which however have not remained mere theories but which have found their way into the opinions of the common man, have reversed the situation and made the present subservient to a rigid yet abstract future. There is but one issue involved in all reflection upon conduct: The rectifying of present troubles, the harmonizing of present incompatibilities by projecting a course of action which gathers into itself the meaning of them all.

The utilitarians also made good and evil, right and wrong, matters of conscious experience. In addition they brought them down to earth, to everyday experience. They strove to humanize other-worldly goods. But they retained the notion that the good is future, and hence outside the meaning of present activity. In so far it is sporadic, exceptional, subject to accident, passive, an enjoyment not a joy, something hit upon, not a fulfilling. The future end is for them not *so* remote from present action as the Platonic realm of ideals, or as the Aristotelian rational thought, or the Christian heaven, or Spinoza's conception of the universal whole. But still it is separate in principle and in fact from present activity. The next step is to identify the sought for good with the meaning of our impulses and our habits, and the specific *moral* good or virtue with *learning* this meaning, a learning that takes us back not into an isolated self but out into the open-air world of objects and social ties, terminating in an increment of present significance.

Doubtless there are those who will think that we thus escape from remote and external ends only to fall into an Epicureanism which teaches us to subordinate everything else to present satisfactions. The hypothesis preferred may seem to some to advise a subjective, self-centered life of intensified consciousness, an esthetically dilettante type of egotism. For is not its lesson that we should concentrate attention, each upon the consciousness accompanying his action so as to refine and develop it? Is not this, like all subjective morals, an anti-social doctrine, instructing us to subordinate the objective consequences of our acts, those which promote the welfare of others, to an enrichment of our private conscious lives?

It can hardly be denied that as compared with the dogmas against which it reacted there is an element of truth in Epicureanism. It strove to center attention upon what is actually within control and to find the good in the present instead of in a contingent uncertain future. The trouble with it lies in its account of present good. It failed to connect this good with the full reach of activities. It contemplated good of withdrawal rather than of active participation. That is to say, the objection to Epicureanism lies in its conception of what constitutes present good, not in its emphasis upon satisfaction as at present.

The same remark may be made about every theory which recognizes the individual self. If any such theory is objectionable, the objection is against the character or quality assigned to the self. Of course an individual is the bearer or carrier of experience. What of that? Everything depends upon the kind of experience that centers in him. Not the residence of experience counts, but its contents, what's in the house. The center is not in the abstract amenable to our control, but what gathers about it is our affair. We can't help being individual selves, each one of us. If selfhood as such is a bad thing, the blame lies not with the self but with the universe, with providence.

But in fact the distinction between a selfishness with which we find fault and an unselfishness which we esteem is found in the quality of the activities which proceed from and enter into the self, according as they are contractive, exclusive, or expansive, outreaching. Meaning exists for some self, but this truistic fact doesn't fix the quality of any particular meaning. It may be such as to make the self small, or such as to exalt and dignify the self. It is as impertinent to decry the worth of experience because it is connected with a self as it is fantastic to idealize personality just as personality aside from the question what sort of a person one is.

Other persons are selves too. If one's own present experience is to be depreciated in its meaning because it centers in a self, why act for the welfare of others? Selfishness for selfishness, one is as good as another; our own is worth as much as another's. But the recognition that good is always found in a present growth of significance in activity protects us from thinking that welfare can consist in a soup-kitchen happiness, in pleasures we can confer upon others from without. It shows that good is the same in quality wherever it is found, whether in some other self or in one's own. An activity has meaning in the degree in which it establishes and acknowledges variety and intimacy of connections. As long as any social impulse endures, so long an activity that shuts itself off will bring inward dissatisfaction and entail a struggle for compensatory goods, no matter what pleasures or external successes acclaim its course.

THE OBJECT OF DESIRE IS NOT THE OUTCOME OF DESIRE [8]

It is customary to describe desires in terms of their objects, meaning by objects the things which figure as in imagination their goals. As the object is noble or base, so, it is thought, is desire. In any case, emotions rise and cluster about the object. This stands out so conspicuously in immediate experience that it monopolizes the central position in the traditional psychological theory of desire. Barring gross self-deception or the frustration of external circumstance, the outcome or end-result, of desire is regarded by this theory as similar to the end-in-view or object consciously desired. Such, however, is not the case, as readily appears from the analysis of deliberation. In saying that the actual outcome of desire is different in kind from the object upon which desire consciously fastens, I do not mean to repeat the old complaint about the fallibility and feebleness of mortals in virtue of which man's hopes are frustrated and twisted in realization. The difference is one of diverse dimensions, not of degree or amount.

The object desired and the attainment of desire are no more alike than a signboard on the road is like the garage to which it points and which it recommends to the traveler. Desire is the forward urge of living creatures. When the push and drive of life meets no obstacle, there is nothing which we call desire. There is just life-activity. But obstructions present themselves, and activity is dispersed and divided. Desire is the outcome. It is activity surging forward to break through what dams it up. The "object" which then presents itself in thought as the goal of desire is the object of the environment *which, if it were present*, would secure a re-unification of activity and the restoration of its ongoing unity. The end-in-view of desire is that object which were it present would link into an organized whole activities which are now partial and competing. It is no more like the actual end of desire, or the resulting state attained, than the coupling of cars which have been separated is like an ongoing single train. Yet the train cannot go on without the coupling.

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[8] From *Human Nature and Conduct*, pp. 248-251; 252-254.

Such statements may seem contrary to common sense. The pertinency of the illustration used will be denied. No man desires the signboard which he sees, he desires the garage, the objective, the ulterior thing. But does he? Or is the garage simply a means by which a divided body of activities is redisintegrated or coordinated? Is it desired in any sense for itself, or only because it is the means of effective adjustment of a whole set of underlying habits? While common sense responds to the ordinary statement of the end of desire, it also responds to a statement that no one desires the object for its own sake, but only for what can be got out of it. Here is just the point at which the theory that pleasure is the real objective of desire makes its appeal. It points out that not the physical object nor even its possession is really wanted; that they are only means to something personal and experiential. And hence it is argued that they are means to pleasure. The present hypothesis offers an alternative: it says that they are means of removal of obstructions to an ongoing, unified system of activities.

It is easy to see why an objective looms so large and why emotional surge and stress gather about it and lift it high above the floor of consciousness. The objective is (or is taken to be) the key to the situation. If we can attain it, lay hold of it, the trick is turned. It is like the piece of paper which carries the reprieve a condemned man waits for. Issues of life hang upon it. The desired object is in no sense the end or goal of desire, but it is the *sine qua non* of that end. A practical man will fix his attention upon it, and not dream about eventualities which are only dreams if the objective is not attained, but which will follow in their own natural course if it is reached. For then it becomes a factor in the system of activities. Hence the truth in the various so-called paradoxes of desire. If pleasure or perfection were the true end of desire, it would still be true that the way to attainment is not to think of them. For object thought of and object achieved exist in different dimensions.

In addition to the popular notions that either the object in view or else pleasure is the end of desire, there is a less popular theory that quiescence is the actual outcome or true terminal of desire. The theory finds its most complete practical statement in Buddhism. It is nearer the psychological truth than either of the other notions. But it views the attained outcome simply in its negative aspect. The end reached quiets the clash and removes the discomfort attendant upon divided and obstructed activity. The uneasiness, unrest, characteristic of desire is put to sleep. For this reason, some persons resort to intoxicants and anodynes. If quiescence were the end and it could be perpetuated, this way of removing disagreeable uneasiness would be as satisfactory a way out as the way of objective effort. But in fact desire satisfied does not bring quiescence unqualifiedly, but that *kind* of quiescence which marks the recovery of unified activity: the absence of internal strife among habits and instincts. Equilibration of activities rather than quiescence is the actual result of satisfied desire. This names the outcome positively, rather than comparatively and negatively.

This disparity of dimensions in desire between the object thought of and the outcome reached is the explanation of those self-deceptions which psycho-analysis has brought home to us so forcibly, but of which it gives elaborately cumbrous accounts. The object thought of and the outcome *never* agree. There is no self-deceit in this fact. What, then, really happens when the actual outcome of satisfied revenge figures in thought as virtuous eagerness for justice? Or when the tickled vanity of social admiration is masked as pure love of learning? The trouble lies in the refusal of a person to note the quality of the outcome, not in the unavoidable disparity of desire's object and the outcome. The honest or integral mind attends to the result, and sees what it really is. For no terminal condition is exclusively terminal. Since it exists in time it has consequences as well as antecedents. In being a consummation it is also a force having causal potentialities. It is initial as well as terminal.

Self-deception originates in looking at an outcome in one direction only—as a satisfaction of what has gone before, ignoring the fact that what is attained is a state of habits which will continue in action and which will determine future results. Outcomes of desire are also beginnings of new acts and hence are portentous. Satisfied revenge may *feel* like justice vindicated; the prestige of learning may *feel* like an enlargement and rectification of an objective outlook. But since different instincts and habits have entered into them, they are actually, that is dynamically, unlike. The function of moral judgment is to detect this unlikeness. Here, again, the belief that we can know ourselves immediately is as disastrous to moral science as the corresponding idea regarding knowledge of nature was to physical science. Obnoxious "subjectivity" of moral judgment is due to the fact that the immediate or esthetic quality swells and swells and displaces the thought of the active potency which gives activity its moral quality.

We are all natural Jack Horners. If the plum comes when we put in and pull out our thumb we attribute the satisfactory result to personal virtue. The plum is obtained, and it is not easy to distinguish obtaining from attaining, acquisition from achieving. Jack Horner, Esq., put forth *some* effort; and results and efforts are always more or less incommensurate. For the result is always dependent to some extent upon the favor or disfavor of circumstance. Why then should not the satisfactory plum shed its halo retrospectively upon what precedes and be taken as a sign of virtue? In this way heroes and leaders are constructed. Such is the worship of success. And the evil of success-worship is precisely the evil with which we have been dealing. "Success" is never merely final or terminal. Something else succeeds it, and its successors are influenced by its nature, that is by the persisting habits and impulses that enter into it. The world does not stop when the successful person pulls out his plum; nor does he stop, and the kind of success he obtains, and his attitude toward it, is a factor in what comes afterwards. By a strange turn of the wheel, the success of the ultra-practical man is psychologically like the refined enjoyment of the ultra-esthetic person. Both ignore the eventualities with which every state of experience is charged. There is no reason for not enjoying the present, but there is every reason for examination of the objective factors of *what* is enjoyed before we translate enjoyment into a belief in excellence. There is every reason in other words for cultivating another enjoyment, that of the habit of examining the productive potentialities of the objects enjoyed.

SOCIAL PATTERNS AND PERSONAL IDEALS[4]

Intelligence becomes ours in the degree in which we use it and accept responsibility for consequences. It is not ours originally or by production. "It thinks" is a truer psychological statement than "I think." Thoughts sprout and vegetate; ideas proliferate. They come from deep unconscious sources. "I think" is a statement about voluntary action. Some suggestion surges from the unknown. Our active body of habits appropriates it. The suggestion then becomes an assertion. It no longer merely comes to us. It is accepted and uttered by us. We act upon it and thereby assume, by implication, its consequences. The stuff of belief and proposition is not originated by us. It comes to us from others, by education, tradition and the suggestion of the environment. Our intelligence is bound up, so far as its materials are concerned, with the community life of which we are a part. We know what it communicates to us, and know according to the habits it forms in us. Science is an affair of civilization not of individual intellect.

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[4] From *Human Nature and Conduct*, pp. 314-316; 75-76; 19-20.

So with conscience. When a child acts, those about him re-act. They shower encouragement upon him, visit him with approval, or they bestow frowns and rebuke. What others do to us when we act is as natural a consequence of our action as what the fire does to us when we plunge our hands in it. The social environment may be as artificial as you please. But its action in response to ours is natural not artificial. In language and imagination we rehearse the responses of others just as we dramatically enact other consequences. We foreknow how others will act, and the foreknowledge is the beginning of judgment passed on action. We know *with* them; there is conscience. An assembly is formed within our breast which discusses and appraises proposed and performed acts. The community without becomes a forum and tribunal within, a judgment-seat of charges, assessments and exculpations. Our thoughts of our own actions are saturated with the ideas that others entertain about them, ideas which have been expressed not only in explicit instruction but still more effectively in reaction to our acts.

Liability is the beginning of responsibility. We are held accountable by others for the consequences of our acts. They visit their like and dislike of these consequences upon us. In vain do we claim that these are not ours; that they are products of ignorance not design, or are incidents in the execution of a most laudable scheme. Their authorship is imputed to us. We are disapproved, and disapproval is not an inner state of mind but a most definite act. Others say to us by their deeds we do not care a fig whether you did this deliberately or not. We intend that you *shall* deliberate before you do it again, and that if possible your deliberation shall prevent a repetition of this act we object to. The reference in blame and every unfavorable judgment is prospective, not retrospective. Theories about responsibility may become confused, but in practice no one is stupid enough to try to change the past. Approbation and disapprobation are ways of influencing the formation of habits and aims; that is, of influencing future acts. The individual is *held* accountable for what he *has* done in order that he may be responsive in what he is *going* to do. Gradually persons learn by dramatic imitation to hold themselves accountable, and liability becomes a voluntary deliberate acknowledgment that deeds are our own, that their consequences come from us.

These two facts, that moral judgment and moral responsibility are the work wrought in us by the social environment, signify that all morality is social; not because we *ought* to take into account the effect of our acts upon the welfare of others, but because of facts. Others *do* take account of what we do, and they respond accordingly to our acts. Their responses actually *do* affect the meaning of what we do. The significance thus contributed is as inevitable as is the effect of interaction with the physical environment. In fact as civilization advances the physical environment gets itself more and more humanized, for the meaning of physical energies and events becomes involved with the part they play in human activities. Our conduct *is* socially conditioned whether we perceive the fact or not.

In practical life, there are many recognitions of the part played by social factors in generating personal traits. One of them is our habit of making social classifications. We attribute distinctive characteristics to rich and poor, slum-dweller and captain of industry, rustic and suburbanite, officials, politicians, professors, to members of races, sets and parties. These judgments are usually too coarse to be of much use. But they show our practical awareness that personal traits are functions of social situations.

For practical purposes morals mean customs, folkways, established collective habits. This is a commonplace of the anthropologist, though the moral theorist generally suffers from an illusion that his own place and day is, or ought to be, an exception. But always and everywhere customs supply the standards for personal activities. They are the pattern into which individual activity must weave itself. This is as true today as it ever was. But because of present mobility and interminglings of customs, an individual is now offered an enormous range of custom-patterns, and can exercise personal ingenuity in selecting and rearranging their elements. In short he can, if he will, intelligently adapt customs to conditions, and thereby remake them. Customs in any case constitute moral standards. For they are active demands for certain ways of acting. Every habit creates an unconscious expectation. It forms a certain outlook. What psychologists have laboriously treated under the caption of association of ideas has little to do with ideas and everything to do with the influence of habit upon recollection and perception. A habit, a routine habit, when interfered with generates uneasiness, sets up a protest in favor of restoration and a sense of need of some expiatory act, or else it goes off in casual reminiscence. It is the essence of routine to insist upon its own continuation. Breach of it is violation of right. Deviation from it is transgression.

THE MEANING OF "OUGHT" IN THE MORAL LIFE [5]

What is the relation of knowledge, or theory, to that Ought which seems to be the very essence of moral conduct? The "ought" is never its own justification. We ought to do so and so simply because of the existing practical situation; because of the relationships in which we find ourselves. We may, by an abstraction, which is justifiable enough as a means of analysis, distinguish between what is and what should be; but this is far from meaning that there is any such separation in reality. Let us take, then, a specific case: Here is a street-car conductor, and the question is whether he should (ought to) join in a strike which his Union has declared. I do not intend to make and resolve some hypothetical case but simply, in order to get out of that undoubtedly adorable, yet somewhat vague, realm to which we so naturally incline when we discuss obligation, call up the kind of fact which constitutes obligation.

The man thinks of his special work, with its hardships, indeed, and yet a work, an activity and thus a form of freedom or satisfaction; he thinks of his wage, of what it buys; of his needs, his clothing, his food, his beer and pipe. He thinks of his family, and of his relations to them; his need of protecting and helping them on; his children, that he would educate, and give an evener start in the world than he had himself; he thinks of the families of his fellows; of the need that they should live decently and advance somewhat; he thinks of his bonds to his Union; he calls up the way in which the families of the corporation which employs him live; he tries to realize the actual state of business, and imagines a possible failure and its consequences, and so on. Now where in this case do we get beyond concrete facts, and what is the "ought" but the outcome of these facts, varying as the facts vary, and expressing simply and only the situation which the facts form, so far as our man has the intelligence to get

[5] From "Moral Theory and Practice," loc. cit., pp. 198-203.

at it? And how does this case differ from any case of moral action?

What has become of moral rules and laws in this case? I cannot go over the ground already gone over, but I must repeat that a man's duty is never to obey certain rules; his duty is always to respond to the nature of the actual demands which he finds made upon him,—demands which do not proceed from abstract rules, nor from ideals, however awe-inspiring and exalted, but from the concrete relations to men and things in which he finds himself. The rule, at worst and at best, is but an aid towards discriminating what the nature of these relations and demands is. It may be true, that the Golden Rule does not indicate anything that happens; in the same sense, however, it is true that the law of gravitation does not indicate anything that is. Both laws, as *mere* laws, are abstractions or hypotheses; and to keep them abstractions, to keep them away from the facts, is to keep them from indicating, or pointing to, anything. Taken in any full meaning, the law of gravitation indicates an order of physical fact in which matter behaves thus and so; the Golden Rule indicates an order of social fact, in which it is true that persons act thus and so, and not simply desirable that they should act thus and so. The Golden Rule has no more meaning apart from the real constitution of a social order than the law of gravitation has apart from the real constitution of matter and force.

In a word, a man has not to do Justice and Love and Truth; he has to do justly and truly and lovingly. And this means that he has to respond to the actual relations in which he finds himself. To do truly is to regard the whole situation as far as one sees it, and to see it as far as one can; to do justly is to give a fit and impartial regard to each member of this situation, according to its place in the system; to do lovingly is to make the whole situation one's own, not dividing into parts of which one is a warm *meum* and the other a cold *tuum*.

The correctness of the exact definitions given is a matter, of course, of no importance. The point is that all definitions given must be given in the same terms,—terms, that is, not of mere "oughts" but of concrete ways of acting in reference to a situation, not unearthly, but of facts. Let, for example, our conductor be fixed upon justice. Now, just so far as he is able to resolve "justice" into specific relations between men and men, so far he will have a definite end in view, and such emotions as are aroused within him will simply quicken him in his effort to realize these relations. But just so far as he cannot translate "justice" into such actual relations so far it becomes a sentiment,—it is justice in general, at large. And this sentiment is almost sure to turn into a bitterness of feeling which leads astray,—to a blind feeling that things should be overturned because they are not what they should be.

And every duty, every ought, so far as it is not the outcome of analysis of the situation demanding action, must come to some such mere feeling. The logical consequences of the separation of the "ought" from the "is" is worshipping blind impulses, labelled love of justice, of truth, of humanity. Its final term is the apotheosis of sentiment, of the pious sigh, "Oh, would that things were otherwise!" If the "ought" escapes this mire, it is only to run upon a rock,—the bare, brute fact of "oughtness" with no essential meaning. It stiffens into a rigid external must, imposed no one knows why or how. The attempt to keep the "ought" unrationalized undoubtedly springs from a desire to keep it pure; to free it from dependence upon some ulterior reason, in the sense of a reason behind the act itself. But to deny that the moral act, the "ought" has a meaning behind the act itself is not incompatible with recognizing that the "ought" itself has a reason, that it is a perfect nest of meanings. To evacuate the "ought" of this intrinsic rationale is to drive out all moral quality and render it the compulsion of a superior force. It is only because the "ought" rests upon and expresses the "is" that it is something more than vague, ill-directed sentiment or rigid external command.

If the "ought" and the "is" are so close to each other, where is the relative distinction? Here: the "ought" is the "is" of *action.* There seems to be an opinion that obligation, the "oughtness" is something superadded to the analysis of the act itself; that we may have examined never so thoroughly the content of a proposed act, of some suggested end, without the idea of obligation ever presenting itself, the result being some intellectual judgment regarding bare fact. Some machinery, the exact nature of which I have never found stated, is then called in to clap on the "ought," and thus give a moral aspect to a hitherto coldly intellectual matter.

The creaking, lumbering *Deus ex machina* which in nick of time projects its proper entity upon the stage of human knowledge has, however, so often been replaced by the smooth, swift workings of a single intelligence, that we may gather courage for the hope that the "ought" too is from intelligence rather than a somewhat let down from supernal flies or sprung from an unearthly trap.

It must be remembered that the material of judgment here is practical, not theoretical. The question is not concerning the given state of things, but concerning an end to be adopted; or, rather, it is concerning the bare actual fact only so far as that points to some active outcome, to some end. The difference between a practical and a theoretical consciousness is that the former is consciousness of *something to be done.* And this consciousness of something to be done is the consciousness of duty. Suppose, once more, our conductor. He has thought out, as best he may, the existing situation, and has come to the conclusion that the only act which meets the situation, as he understands it, is to join the strike. Now, does he require some new power of mind to bring in the "ought," and to tell him that this is the act that should be done? The very question he has been considering is a question of action, of practice; what is the especial line of conduct to be followed here? The outcome of his reflections has been just: *This* step is the one to be taken. The difference between saying, "This act is the one to be done, this act will meet the situation," and saying, "The act *ought* to be done," is merely verbal.

The analysis of action is from the first an analysis of what is to be done; how, then, should it come out excepting a "this should be done"? Just as the consciousness of truth is not adventitious to a judgment of fact but constitutes its content, so the consciousness of obligation is not an annex to the judgment of action. Any being who is capable of acting from ideas—that is, whose conduct is the attempted realization of proposed ends—must conceive of these ends in terms of something to be done—of obligation. And that is what is meant by saying not only that the "ought" rests upon and expresses the "is," but that it is itself the "is" of action. What we ordinarily call an "is" is simply the "is" of fact at rest. If action, or the following out of ideas, is not a fact, with just the same claims to be considered a part of the real world as a stick or a stone, a planet, or an earthworm, then, and then only, have the separation of the "is" and the "ought," the unverifiableness of moral ideas, the attractiveness and authority of moral ideas apart from facts, and the existence of a domain beyond science, any shred of meaning.

Imagine a scene of ceaseless movement; needs, relations, institutions ever moving on. In the midst of this scene appears an intelligence who identifies himself with the wonderful spectacle of action. He finds that its law is his law, because he *is* only as a member sharing in its needs, constituted by its relations and formed by its institutions. This intelligence would know this scene that he may know himself. He puts forth his grasp, his *Begriff*, and arrests the movement. Taking the movement at a certain point and holding it there, intelligence cuts a cross-section through it to see what it is like. It has now mastered the situation, the case "is" thus and so. Then intelligence removes its brake, its abstracting hold, and the scene moves on. That to which intelligence sees it moving is the "ought to be." The "ought to be" is the larger and fuller activity into which it is the destiny and glory of the present fact to pass.

THE MORAL AUTHORITY OF HUMAN IDEALS[6]

It is said that to derive moral standards from social customs is to evacuate the latter of all authority. Morals, it is said, imply the subordination of fact to ideal consideration, while the view presented makes morals secondary to bare fact, which is equal to depriving them of dignity and jurisdiction. The objection has the force of the custom of moral theorists behind it; and therefore in its denial of custom avails itself of the assistance of the notion it attacks. The criticism rests upon a false separation. It argues in effect that either ideal standards antecede customs and confer their moral quality upon them, or that in being subsequent to custom and evolved from them, they are mere accidental by-products.

But how does the case stand with language? Men did not intend language; they did not have social objects consciously in view when they began to talk, nor did they have grammatical and phonetic principles before them by which to regulate their efforts at communication. These things come after the fact and because of it. Language grew out of unintelligent babblings, instinctive motions called gestures, and the pressure of circumstance. But nevertheless language once called into existence is language and operates as language. It operates not to perpetuate the forces which produced it but to modify and redirect them. It has such transcendent importance that pains are taken with its use. Literatures are produced, and then a vast apparatus of grammar, rhetoric, dictionaries, literary criticism, reviews, essays, a derived literature *ad lib.* Education, schooling, becomes a necessity; literacy an end. In short language when it is produced meets old needs and opens new possibilities. It creates demands which take effect, and the effect is not confined to speech and literature, but extends to the common life in communication, counsel and instruction.

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[6] From *Human Nature and Conduct*, pp. 79-83.

What is said of the institution of language holds good of every institution. Family life, property, legal forms, churches and schools, academies of art and science did not originate to serve conscious ends nor was their generation regulated by consciousness of principles of reason and right. Yet each institution has brought with its development demands, expectations, rules, standards. These are not mere embellishments of the forces which produced them, idle decorations of the scene. They are additional forces. They reconstruct. They open new avenues of endeavor and impose new labors. In short they are civilization, culture, morality.

Still the question recurs: What authority have standards and ideas which have originated in this way? What claim have they upon us? In one sense the question is unanswerable. In the same sense, however, the question is unanswerable whatever origin and sanction is ascribed to moral obligations and loyalties. Why attend to metaphysical and transcendental ideal realities even if we concede they are the authors of moral standards? Why do this act if I feel like doing something else? Any moral question may reduce itself to this question if we so choose. But in an empirical sense the answer is simple. The authority is that of life. Why employ language, cultivate literature, acquire and develop science, sustain industry, and submit to the refinements of art? To ask these questions is equivalent to asking: Why live? And the only answer is that if one is going to live one must live a life of which these things form the substance. The only question having sense which can be asked is *how* we are going to use and be used by these things, not whether we are going to use them. Reason, moral principles, cannot in any case be shoved behind these affairs, for reason and morality grow out of them. But they have grown into them as well as out of them. They are there as part of them. No one can escape them if he wants to. He cannot escape the problem of *how* to engage in life, since in any case he must engage in it in some way or other—or else quit and get out. In short, the choice is not between a moral authority outside custom and one within it. It is between adopting more or less intelligent and significant customs.

Curiously enough, the chief practical effect of refusing to recognize the connection of custom with moral standards is to deify some special custom and treat it as eternal, immutable, outside of criticism and revision. This consequence is especially harmful in times of rapid social flux. For it leads to disparity between nominal standards, which become ineffectual and hypocritical in exact ratio to their theoretical exaltation, and actual habits which have to take note of existing conditions. The disparity breeds disorder. Irregularity and confusion are however practically intolerable, and effect the generation of a new rule of some sort or other. Only such complete disturbance of the physical bases of life and security as comes from plague and starvation can throw society into utter disorder. No amount of intellectual transition can seriously disturb the main tenor of custom, or morals. Hence the greater danger which attends the attempt in period of social change to maintain the immutability of old standards is not general moral relaxation. It is rather social clash, an irreconciled conflict of moral standards and purposes, the most serious form of class warfare.

For segregated classes develop their own customs, which is to say their own working morals. As long as society is mainly immobile these diverse principles and ruling aims do not clash. They exist side by side in different strata. Power, glory, honor, magnificence, mutual faith here; industry, obedience, abstinence, humility, and reverence there: noble and plebeian virtues. Vigor, courage, energy, enterprise here; submission, patience, charm, personal fidelity there: the masculine and feminine virtues. But mobility invades society. War, commerce, travel, communication, contact with the thoughts and desires of other classes, new inventions in productive industry, disturb the settled distribution of customs. Congealed habits thaw out, and a flood mixes things once separated.

Each class is rigidly sure of the rightness of its own ends and hence not overscrupulous about the means of attaining them. One side proclaims the ultimacy of order—that of some old order which conduces to its own interest. The other side proclaims its rights to freedom, and identifies justice with its submerged claims. There is no common ground, no moral understanding, no agreed upon standard of appeal. Today such a conflict occurs between propertied classes and those who depend upon daily wage; between men and women; between old and young. Each appeals to its own standard of right, and each thinks the other the creature of personal desire, whim or obstinacy. Mobility has affected peoples as well. Nations and races face one another, each with its own immutable standards. Never before in history have there existed such numerous contacts and minglings. Never before have there been such occasions for conflict which are the more significant because each side feels that it is supported by moral principles. Customs relating to what has been and emotions referring to what may come to be go their independent ways. The demand of each side treats its opponent as a wilful violator of moral principles, an expression of self-interest or superior might. Intelligence which is the only possible messenger of reconciliation dwells in a far land of abstractions or comes after the event to record accomplished facts.

CHAPTER THIRTEEN

ELEMENTS OF EDUCATION

THE ART OF EDUCATION[1]

THE art of education is one in which every person is compelled whether he will or not to take an interest, because it so intimately concerns his conduct. A person may begin with a narrow interest, one that cares only about, say, the education of his own children, or of members of his own profession. But he does not go far before he is forced to note that he is building on a sandy foundation because of deficiencies due to earlier education. Professional education has its results limited and twisted because of the general state of education. Surveying that, it appears that its improvement cannot be made secure merely by better training of teachers. Parents, school officials, taxpayers have the last word, and the character of that word is dependent upon *their* education. They may and do block or deflect the best laid plans. That is the circle in which education moves. Those who received education are those who give it; habits already engendered deeply influence its course. It is as if no one could be educated in the full sense until everyone is developed beyond the reach of prejudice, stupidity and apathy.

There is no possibility of complete escape from this circle. Education returns upon itself in such a multitude of ways as to render out of the question any short-cut solution. It is a matter of accelerating momentum in the right direction, and of increasing the effective energy within the movement of the factors that make for removing obstacles. Chief among these obstacles are the practices which are associated with the traditional separation of mind and body, and the consequent neglect of informed and intelligent action as the aim of all educational development. The division has affected every subject of study, every method of instruction and discipline. More than anything else it explains the separation of theory and practise, of thought and action. The result is the so-called cultural education which tends to be academic and pedantic—in any case aloof from the concerns of life; and an industrial and manual education which at best gives command of tools and means without intelligent grasp of purposes and ends.

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[1] From *Body and Mind;* an Address before the New York Academy of Medicine.

The consequences of this divided education are writ large in the state of our civilization. The physician meets them in a wide range of induced disorders, to say nothing of waste and incapacitation. The walls which mark the separation are beginning to crack although they are far from crumbling. From all sides the artificiality of isolation from one another of mind and body are commencing to be seen. There is at least the beginning of cooperation between those who are traditionally occupied with the concerns of mind and those busy with the affairs of the body.

The planning of any good school building is an illustrative symbol. Architect, engineer, hygienist, teacher and public official may join forces. But there are still many who should have a say,—like the psychologist,—who are left out, and such cooperation as there is lacks balance. It would be interesting, for example, to know what physicians would say of the wisdom of the herding together of thousands of children in our gigantic buildings with the enforced need of dealing with children en masse and the institution of lock-step methods—what they would say if they were consulted and if they thought their voice would be heeded.

The growing interest in pre-school education, nursery schools and parental education, the development of medical inspection, the impact of social hygiene, the institution of school visitors and the use of schools for social centers are other evidences that the isolation of schools from life is beginning to give way because of cooperative action. But not even the most optimistic would hold that we have advanced beyond the outer breastworks. The forces are still powerful that make for centrifugal and divisive education. And the chief of these is, let it be repeated, that separation of mind and body which is incarnated in religion, morals and business as well as in science and philosophy. The full realization of the integration of mind and body in action waits upon the reunion of philosophy and science in art—above all, in the supreme art—the art of education.

THE MEANING OF EDUCATION[2]

Education is a constant reorganizing or reconstructing of experience. It has all the time an immediate end, and so far as activity is educative, it reaches that end—the direct transformation of the quality of experience. Infancy, youth, adult life,—all stand on the same educative level in the sense that what is really *learned* at any and every stage of experience constitutes the value of that experience, and in the sense that it is the chief business of life at every point to make living thus contribute to an enrichment of its own perceptible meaning.

We thus reach a technical definition of education: It is that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience. The increment of meaning corresponds to the increased perception of the connections and continuities of the activities in which we are engaged. The activity begins in an impulsive form; that is, it is blind. It does not know what it is about; that is to say, what are its interactions with other activities. An activity which brings education or instruction with it makes one aware of some of the connections which had been imperceptible.

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[2] From *Democracy and Education,* pp. 89-92.

To use a simple example, a child who reaches for a bright light gets burned. Henceforth he *knows* that a certain act of touching in connection with a certain act of vision (and *vice-versa*) means heat and pain; or, a certain light means a source of heat. The acts by which a scientific man in his laboratory learns more about flame differ no whit in principle. By doing certain things, he makes perceptible certain connections of heat with other things, which had been previously ignored. Thus his acts in relation to these things get more meaning; he knows better what he is doing or "is about" when he has to do with them; he can *intend* consequences instead of just letting them happen—all synonymous ways of saying the same thing. At the same stroke, the flame has gained in meaning; all that is known about combustion, oxidation, about light and temperature, may become an intrinsic part of its intellectual content.

The other side of an educative experience is an added power of subsequent direction or control. To say that one knows what he is about, or can intend certain consequences, is to say, of course, that he can better anticipate what is going to happen; that he can, therefore, get ready or prepare in advance so as to secure beneficial consequences and avert undesirable ones. A genuinely educative experience, then, one in which instruction is conveyed and ability increased, is contradistinguished from a routine activity on one hand, and a capricious activity on the other. In the latter one "does not care what happens"; one just lets himself go and avoids connecting the consequences of one's act (the evidences of its connections with other things) with the act. It is customary to frown upon such aimless random activity, treating it as wilful mischief or carelessness or lawlessness. But there is a tendency to seek the cause of such aimless activities in the youth's own disposition, isolated from everything else. But in fact such activity is explosive, and due to maladjustment with surroundings. Individuals act capriciously whenever they act under external dictation, or from being told, without having a purpose of their own or perceiving the bearing of the deed upon other acts.

One may learn by doing something which he does not understand; even in the most intelligent action, we do much which we do not mean, because the largest portion of the connections of the act we consciously intend are not perceived or anticipated. But we learn only because after the act is performed we note results which we had not noted before. But much work in school consists in setting up rules by which pupils are to act of such a sort that even after pupils have acted, they are not led to see the connection between the result—say the answer—and the method pursued. So far as they are concerned, the whole thing is a trick and a kind of miracle. Such action is essentially capricious, and leads to capricious habits. Routine action, action which is automatic, may increase skill to do a *particular* thing. In so far, it might be said to have an educative effect. But it does not lead to new perceptions of bearings and connections; it limits rather than widens the meaning-horizon. And since the environment changes and our way of acting has to be modified in order successfully to keep a balanced connection with things, an isolated uniform way of acting becomes disastrous at some critical moment. The vaunted "skill" turns out gross ineptitude.

The idea of education as continuous reconstruction identifies the end (the result) and the process. This is verbally self-contradictory, but only verbally. It means that experience as an active process occupies time and that its later period completes its earlier portion; it brings to light connections involved, but hitherto unperceived. The later outcome thus reveals the meaning of the earlier, while the experience as a whole establishes a bent or disposition toward the things possessing this meaning.

Every such continuous experience or activity is educative, and all education resides in having such experiences.

It remains only to point out that the reconstruction of experience may be social as well as personal. For purposes of simplification we can speak somewhat as if the education of the immature which fills them with the spirit of the social group to which they belong, were a sort of catching up of the child with the aptitudes and resources of the adult group. In static societies, societies which make the maintenance of established custom their measure of value, this conception applies in the main. But not in progressive communities. They endeavor to shape the experiences of the young so that instead of reproducing current habits, better habits shall be formed, and thus the future adult society be an improvement on their own. Men have long had some intimation of the extent to which education may be consciously used to eliminate obvious social evils through starting the young on paths which shall not produce these ills, and some idea of the extent in which education may be made an instrument of realizing the better hopes of men. But we are doubtless far from realizing the potential efficacy of education as a constructive agency of improving society, from realizing that it represents not only a development of children and youth but also of the future society of which they will be the constituents.

EDUCATION AND THE INDIVIDUAL[3]

Individuality as a factor to be respected in education has a double meaning. In the first place, one is mentally an individual only as he has his own purpose and problem, and does his own thinking. The phrase "think for one's self" is a pleonasm. Unless one does it for one's self, it isn't thinking. Only by a pupil's own observations, reflections, framing and testing of suggestions can what he already knows be amplified and rectified. Thinking is as much an individual matter as is the digestion of food. In the second place, there are variations of point of view, of appeal of objects, and of mode of attack, from person to person. When these variations are suppressed in the alleged interests of uniformity, and an attempt is made to have a single mold of method of study and recitation, mental confusion and artificiality inevitably result. Originality is gradually destroyed, confidence in one's own quality of mental operation is undermined, and a docile subjection to the opinion of others is inculcated, or else ideas run wild.

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[3] From *Democracy and Education*, pp. 353-356.

The harm is greater now than when the whole community was governed by customary beliefs, because the contrast between methods of learning in school and those relied upon outside the school is greater. That systematic advance in scientific discovery began when individuals were allowed, and then encouraged, to utilize their own peculiarities of response to subject matter, no one will deny. If it is said in objection, that pupils in school are not capable of any such originality, and hence must be confined to appropriating and reproducing things already known by the better informed, the reply is twofold. We are in the first place concerned with originality of attitude which is equivalent to the unforced response of one's own individuality, not with originality as measured by product. No one expects the young to make original discoveries of just the same facts and principles as are embodied in the sciences of nature and man. But it is not unreasonable to expect that learning may take place under such conditions that from the standpoint of the learner there is genuine discovery. While immature students will not make discoveries from the standpoint of advanced students, they make them from their own standpoint, whenever there is genuine learning. Secondly, in the normal process of becoming acquainted with subject matter already known to others, even young pupils react in unexpected ways. There is something fresh, something not capable of being fully anticipated by even the most experienced teacher, in the ways they go at the topic, and in the particular ways in which things strike them. Too often all this is brushed aside as irrelevant; pupils are deliberately held to rehearsing material in the exact form in which the older person conceives it. The result is that what is instinctively original in individuality, that which marks off one from another, goes unused and undirected. Teaching then ceases to be an educative process for the teacher. At most he learns simply to improve his existing technique; he does not get new points of view; he fails to experience any intellectual companionship. Hence both teaching and learning tend to become conventional and mechanical with all the nervous strain on both sides therein implied.

As maturity increases and as the student has a greater background of familiarity upon which a new topic is projected, the scope of more or less random physical experimentation is reduced. Activity is defined or specialized in certain channels. To the eyes of others, the student may be in a position of complete physical quietude, because his energies are confined to nerve channels and to the connected apparatus of the eyes and vocal organs. But because this attitude is evidence of intense mental concentration on the part of the trained person, it does not follow that it should be set up as a model for students who still have to find their intellectual way about. And even with the adult, it does not cover the whole circuit of mental energy. It marks an intermediate period, capable of being lengthened with increased mastery of a subject, but always coming between an earlier period of more general and conspicuous organic action and a later time of putting to use what has been apprehended.

When, however, education takes cognizance of the union of mind and body in acquiring knowledge, we are not obliged to insist upon the need of obvious, or external, freedom. It is enough to identify the freedom which is involved in teaching and studying with the thinking by which what a person already knows and believes is enlarged and refined. If attention is centered upon the conditions which have to be met in order to secure a situation favorable to effective thinking, freedom will take care of itself. The individual who has a question which being really a question to him instigates his curiosity, which feeds his eagerness for information that will help him cope with it, and who has at command an equipment which will permit these interests to take effect, is intellectually free. Whatever initiative and imaginative vision he possesses will be called into play and control his impulses and habits. His own purposes will direct his actions. Otherwise, his seeming attention, his docility, his memorizings and reproductions, will partake of intellectual servility. Such a condition of intellectual subjection is needed for fitting the masses into a society where the many are not expected to have aims or ideas of their own, but to take orders from the few set in authority. It is not adapted to a society which intends to be democratic.

THE INDIVIDUAL AND THE SCHOOL [4]

When the social quality of individualized mental operations is denied, it becomes a problem to find connections which will unite an individual with his fellows. Moral individualism is set up by the conscious separation of different centers of life. It has its roots in the notion that the consciousness of each person is wholly private, a self-inclosed continent, intrinsically independent of the ideas, wishes, purposes of everybody else. But when men act, they act in a common and public world. This is the problem to which the theory of isolated and independent conscious minds gave rise: Given feelings, ideas, desires, which have nothing to do with one another, how can actions proceeding from them be controlled in a social or public interest? Given an egoistic consciousness, how can action which has regard for others take place?

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[4] From *Democracy and Education*, pp. 347-353; "Individuality and Experience" in *Journal of the Barnes Foundation*, Vol. II, pp. 2-6.

Moral philosophies which have started from such premises have developed four typical ways of dealing with the question. One method represents the survival of the older authoritative position, with such concessions and compromises as the progress of events has made absolutely inevitable. The deviations and departures characterizing an individual are still looked upon with suspicion; in principle they are evidences of the disturbances, revolts, and corruptions inhering in an individual apart from external authoritative guidance. In fact, as distinct from principle, intellectual individualism is tolerated in certain technical regions—in subjects like mathematics and physics and astronomy, and in the technical inventions resulting therefrom.

But the applicability of a similar method to morals, social, legal, and political matters, is denied. In such matters, dogma is still to be supreme; certain eternal truths made known by revelation, intuition, or the wisdom of our forefathers set unpassable limits to individual observation and speculation. The evils from which society suffers are set down to the efforts of misguided individuals to transgress these boundaries. Between the physical and the moral sciences, lie intermediate sciences of life, where the territory is only grudgingly yielded to freedom of inquiry under the pressure of accomplished fact. Although past history has demonstrated that the possibilities of human good are widened and made more secure by trusting to a responsibility built up within the very process of inquiry, the "authority" theory sets apart a sacred domain of truth which must be protected from the inroads of variation of beliefs. Educationally, emphasis may not be put on eternal truth, but it is put on the authority of book and teacher, and individual variation is discouraged.

Another method is sometimes termed rationalism or abstract intellectualism. A formal logical faculty is set up in distinction from tradition and history and all concrete subject matter. This faculty of reason is endowed with power to influence conduct directly. Since it deals wholly with general and impersonal forms, when different persons act in accord with logical findings, their activities will be externally consistent. There is no doubt of the services rendered by this philosophy. It was a powerful factor in the negative and dissolving criticism of doctrines having nothing but tradition and class interest behind them; it accustomed men to freedom of discussion and to the notion that beliefs had to be submitted to criteria of reasonableness. It undermined the power of prejudice, superstition, and brute force, by habituating men to reliance upon argument, discussion, and persuasion. It made for clarity and order of exposition.

But the influence of rationalism was greater in destruction of old falsities than in the construction of new ties and associations among men. Its formal and empty nature, due to conceiving reason as something complete in itself apart from subject matter, its hostile attitude toward historical institutions, its disregard of the influence of habit, instinct, and emotion, as operative factors in life, left it impotent in the suggestion of specific aims and methods. Bare logic, however important in arranging and criticizing existing subject matter, cannot spin new subject matter out of itself. In education, the correlative is trust in general ready-made rules and principles to secure agreement, irrespective of seing to it that the pupil's ideas really agree with one another.

While this rationalistic philosophy was developing in France, English thought appealed to the intelligent self-interest of individuals in order to secure outer unity in the acts which issued from isolated streams of consciousness. Legal arrangements, especially penal administration, and governmental regulations, were to be such as to prevent the acts which proceeded from regard for one's own private sensations from interfering with the feelings of others. Education was to instill in individuals a sense that non-interference with others and some degree of positive regard for their welfare were necessary for security in the pursuit of one's own happiness. Chief emphasis was put, however, upon trade as a means of bringing the conduct of one into harmony with that of others. In commerce, each aims at the satisfaction of his own wants, but can gain his own profit only by furnishing some commodity or service to another. Thus in aiming at the increase of his own private pleasurable states of consciousness, he contributes to the consciousness of others.

Again there is no doubt that this view expressed and furthered a heightened perception of the values of conscious life, and a recognition that institutional arrangements are ultimately to be judged by the contributions which they make to intensifying and enlarging the scope of conscious experience. It also did much to rescue work, industry, and mechanical devices from the contempt in which they had been held in communities founded upon the control of a leisure class. In both ways, this philosophy promoted a wider and more democratic social concern. But it was tainted by the narrowness of its fundamental premise: the doctrine that every individual acts only from regard for his own pleasures and pains, and that so-called generous and sympathetic acts are only indirect ways of procuring and assuring one's own comfort. In other words, it made explicit the consequences inhering in any doctrine which makes mental life a self-inclosed thing, instead of an attempt to redirect and readapt common concerns. It made union among men a matter of calculation of externals. It lent itself to the contemptuous assertions of Carlyle that it was a doctrine of anarchy plus a constable, and recognized only a "cash nexus" among men. The educational equivalents of this doctrine in the uses made of pleasurable rewards and painful penalties are only too obvious.

Typical German philosophy followed another path. It started from what was essentially the rationalistic philosophy of Descartes and his French successors. But while French thought upon the whole developed the idea of reason in opposition to the religious conception of a divine mind residing in individuals, German thought (as in Hegel) made a synthesis of the two. Reason is absolute. Nature is incarnate reason. History is reason in its progressive unfolding in man. An individual becomes rational only as he absorbs into himself the content of rationality in nature and in social institutions. For an absolute reason is not, like the reason of rationalism, purely formal and empty; as absolute it must include all content within itself. Thus the real problem is not that of controlling individual freedom so that some measure of social order and concord may result, but of achieving individual freedom through developing individual convictions in accord with the universal law found in the organization of the state as objective Reason.

While this philosophy is usually termed absolute or objective idealism, it might better be termed, for educational purposes at least, institutional idealism. It idealized historical institutions by conceiving them as incarnations of an immanent absolute mind. There can be no doubt that this philosophy was a powerful influence in rescuing philosophy in the beginning of the nineteenth century from the isolated individualism into which it had fallen in France and England. It served also to make the organization of the state more constructively interested in matters of public concern. It left less to chance, less to mere individual logical conviction, less to the workings of private self-interest. It brought intelligence to bear upon the conduct of affairs; it accentuated the need of nationally organized education in the interests of the corporate state. It sanctioned and promoted freedom of inquiry in all technical details of natural and historical phenomena. But in all ultimate moral matters, it tended to reinstate the principle of authority. It made for efficiency of organization more than did any of the types of philosophy previously mentioned, but it made no provision for free experimental modification of this organization. Political democracy, with its belief in the right of individual desire and purpose to take part in readapting even the fundamental constitution of society, was foreign to it.

It is not necessary to consider in detail the educational counterparts of the various defects found in these various types of philosophy. It suffices to say that in general the school has been the institution which exhibited with greatest clearness the assumed antithesis between purely individualistic methods of learning and social action, and between freedom and social control. The antithesis is reflected in the absence of a social atmosphere and motive for learning, and the consequent separation, in the conduct of the school, between method of instruction and methods of government; and in the slight opportunity afforded individual variations. When learning is a phase of active undertakings which involve mutual exchange, social control enters into the very process of learning. When the social factor is absent, learning becomes a carrying over of some presented material into a purely individual consciousness, and there is no inherent reason why it should give a more socialized direction to mental and emotional disposition.

There is tendency on the part of both the upholders and the opponents of freedom in school to identify it with absence of social direction, or, sometimes, with merely physical unconstraint of movement. But the essence of the demand for freedom is the need of conditions which will enable an individual to make his own special contribution to a group interest, and to partake of its activities in such ways that social guidance shall be a matter of his own mental attitude, and not a mere authoritative dictation of his acts. Because what is often called discipline and "government" has to do with the external side of conduct alone, a similar meaning is attached, by reaction, to freedom. But when it is perceived that each idea signifies the quality of mind expressed in action, the supposed opposition between them falls away. Freedom means essentially the part played by thinking—which is personal—in learning:—it means intellectual initiative, independence in observation, judicious invention, foresight of consequences, and ingenuity of adaptation to them.

But because these are the mental phase of behavior, the needed play of individuality—or freedom—cannot be separated from opportunity for free play of physical movements. Enforced physical quietude may be unfavorable to realization of a problem, to undertaking the observations needed to define it and to performance of the experiments which test the ideas suggested. Much has been said about the importance of "self-activity" in education, but the conception has too frequently been restricted to something merely internal—something excluding the free use of sensory and motor organs. Those who are at the stage of learning from symbols, or who are engaged in elaborating the implications of a problem or idea preliminary to more carefully thought-out activity, may need little perceptible overt activity. But the whole cycle of self-activity demands an opportunity for investigation and experimentation, for trying out one's ideas upon things, discovering what can be done with materials and appliances. And this is incompatible with closely restricted physical activity.

Individual activity has sometimes been taken as meaning leaving a pupil to work by himself or alone. Relief from need of attending to what anyone else is doing is truly required to secure calm and concentration. Children, like grown persons, require a judicious amount of being let alone. But the time, place and amount of such separate work is a matter of detail, not principle. There is no inherent opposition between working with others and working as an individual. On the contrary, certain capacities of an individual are not brought out except under the stimulus of associating with others. That a child must work alone and not engage in group activities in order to be free and let his individuality develop, is a notion which measures individuality by spatial distance and makes a physical thing out of it.

As a general proposition no one would deny that personal mental growth is furthered in any branch of human undertaking by contact with the accumulated and sifted experience of others in that line. No one would seriously propose that all future carpenters should be trained by actually starting with a clean sheet, wiping out everything that the past has discovered about mechanics, about tools and their uses and so on. It would not be thought likely that this knowledge would "cramp their style," limit their individuality, etc. But neither, on the other hand, have carpenters been formed by the methods often used in manual training shops where dinky tasks of a minute and technical nature are set, wholly independent of really making anything, having only specialized skill as their aim. As a rule carpenters are educated in their calling by working with others who have experience and skill, sharing in the simpler portions of the real undertakings, assisting in ways which enable them to observe methods and to see what results they are adapted to accomplish.

Such learning is controlled by two great principles: one is participation in something inherently worth while, or undertaken on its own account; the other, is perception of the relation of means to consequences. When these two conditions are met, a third consideration usually follows as a matter of course. Having had an experience of the meaning of certain technical processes and forms of skill, there develops an interest in skill and "technique": the meaning of the result is "transferred" to the means of its attainment. Boys interested in baseball as a game thus submit themselves voluntarily to continued practice in throwing, catching, batting, the separate elements of the game. Or boys who get interested in the game of marbles will practice to increase their skill in shooting and hitting. Just imagine, however, what would happen if they set these exercises as tasks in school, with no prior activity in the games and with no sense of what they were about or for, and without any such appeal to the social, or participating impulses, as takes place in games!

If we generalize from such a commonplace case as the education of artisans through their work, we may say that the customs, methods and *working* standards of the calling constitute a "tradition," and that initiation into the tradition is the means by which the powers of learners are released and directed. But we should also have to say that the urge or need of an individual to join in an undertaking is a necessary prerequisite of the tradition's being a factor in his personal growth in power and freedom; and also that he has to *see* on his own behalf and in his own way the relations between means and methods employed and results achieved. Nobody else can see for him, and he can't see just by being "told," although the right kind of telling may guide his seeing and thus help him see what he needs to see. And if he has no impelling desire of his own to become a carpenter, if his interest in being one is perfunctory, if it is not an interest in *being* a carpenter at all, but only in getting a pecuniary reward by doing jobs, the tradition will never of course really enter into and integrate with his own powers. It will remain, then, a mere set of mechanical and more or less meaningless rules that he is obliged to follow if he is to hold his job and draw his pay.

Supposing, again, that our imaginary pupil works for and with a master carpenter who believes in only one kind of house with a fixed design, and his aim is not only to teach his apprentice to make just that one kind of house, but to accept it with all his soul, heart and mind as the only kind of house that should ever be built, the very type and standard model of all houses. Then it is easy to see that limitation of personal powers will surely result, not merely, moreover, limitation of technical skill but, what is more important, of his powers of observation, imagination, judgment, and even his emotions, since his appreciations will be warped to conform to the one preferred style. The imaginary case illustrates what often happens when we pass from the education of artisans to that of artists. As a rule a carpenter has to keep more or less open; he is exposed to many demands and must be flexible enough to meet them. He is in no position to set up a final authority about ends and models and standards, no matter how expert he may be in methods and means. But an architect in distinction from a builder is likely to be an "authority"; he can dictate and lay down what is right and wrong, and thus prescribe certain ends and proscribe others. Here is a case where tradition is not enhancing and liberating, but is restrictive and enslaving. If he has pupils, he is a "master" and not an advanced fellow worker; his students are disciples rather than learners. Tradition is no longer tradition but a fixed and absolute convention.

In short, the practical difficulty does not reside in any antagonism of methods and rules and results worked out in past experience to individual desire, capacity and freedom. It lies rather in the hard and narrow and, we may truly say, uneducated habits and attitudes of teachers who set up as authorities, as rulers and judges in Israel. As a matter of course they know that as bare individuals they are not "authorities" and will not be accepted by others as such. So they clothe themselves with some tradition as a mantle, and henceforth it is not just "I" who speaks, but some Lord speaks through me. The teacher then offers himself as the organ of the voice of a whole school, of a *finished* classic tradition, and arrogates to himself the prestige that comes from what he is the spokesman for. Suppression of the emotional and intellectual integrity of pupils is the result; their freedom is repressed and the growth of their own personalities stunted. But it is not because of any opposition between the wisdom and skill of the past and the individual capacities of learners; the trouble lies in the habits, standards and ideas of the teacher. It is analogous to another case. There is no inherent opposition between theory and practice; the former enlarges, releases and gives significance to the latter; while practice supplies theory with its materials and with the test and check which keeps it sincere and vital. But there is a whole lot of opposition between human beings who set themselves up as practical and those who set themselves up as theorists, an irresolvable conflict because both have put themselves into a wrong position.

This suggests that the proponents of freedom are in a false position as well as the would-be masters and dictators. There is a present tendency in so-called advanced schools of educational thought to say, in effect, let us surround pupils with certain materials, tools, appliances, etc., and then let pupils respond to these things according to their own desires. Above all let us not suggest any end or plan to the students; let us not suggest to them what they shall do, for that is an unwarranted trespass upon their sacred intellectual individuality since the essence of such individuality is to set up ends and aims.

Now such a method is really stupid. For it attempts the impossible, which is always stupid; and it misconceives the conditions of independent thinking. There are a multitude of ways of reacting to surrounding conditions, and without some guidance from experience these reactions are almost sure to be casual, sporadic and ultimately fatiguing, accompanied by nervous strain. Since the teacher has presumably a greater background of experience, there is the same presumption of the right of a teacher to make suggestions as to what to do, as there is on the part of the head carpenter to suggest to apprentices something of what they are to do. Moreover, the theory literally carried out would be obliged to banish all artificial materials, tools and appliances. Being the product of the skill, thought and matured experience of others, they would also, by the theory, "interfere" with personal freedom.

Moreover, when the child proposes or suggests what to do, some consequence to be attained, whence is the suggestion supposed to spring from? There is no spontaneous germination in the mental life. If he does not get the suggestion from the teacher, he gets it from somebody or something in the home or the street or from what some more vigorous fellow pupil is doing. Hence the chances are great of its being a passing and superficial suggestion, without much depth and range—in other words, not specially conducive to the developing of freedom.

If the teacher is really a teacher, and not just a master or "authority," he should know enough about his pupils, their needs, experiences, degrees of skill and knowledge, etc., to be able not to dictate aims and plans but to share in a discussion regarding what is to be done and be as free to make suggestions as anyone else. (The implication that the teacher is the one and only person who has no "individuality" or "freedom" to "express" would be funny if it were not often so sad in its outworkings.) And his contribution, given the conditions stated, will presumably do more to getting something started which will really secure and increase the development of strictly individual capacities than will suggestions springing from uncontrolled haphazard sources.

The point is also worth dwelling upon, that the method of leaving the response entirely to pupils, the teacher supplying, in the language of the day, only the "stimuli," misconceives the nature of thinking. Any so-called "end" or "aim" or "project" which the average immature person can suggest in advance is likely to be highly vague and unformed, a mere outline sketch, not a suggestion of a definite result or consequence but rather a gesture which roughly indicates a field within which activities might be carried on. It hardly represents thought at all: it is a suggestion. The real intellectual shaping of the "end" or purpose comes during and because of the operations subsequently performed. This is as true of the suggestion which proceeds from the teacher as of those which "spontaneously" spring from the pupils, so that the former does not restrict thought. The advantage on the side of the teacher—if he or she has any business to be in that position—is the greater probability that it will be a suggestion which will permit and require thought in the subsequent activity which builds up a clear and organized conception of an end.

There is no more fatal flaw in psychology than that which takes the original vague forefeeling of some consequence to be realized as the equivalent of a *thought* of an end, a true purpose and directive plan. The thought of an end is strictly correlative to perception of means and methods. Only when, and as the latter becomes clear during the serial process of execution does the project and guiding aim and plan become evident and articulated. In the full sense of the word, a person becomes aware of what he wants to do and what he is about only when the work is actually complete.

The adjective "serial" is important in connection with the process of performance or execution. Each step forward, each "means" used, is a partial attainment of an "end." It makes clearer the character of that end, and hence suggests to an observing mind the next step to be taken, or the means and methods to be next employed. Originality and independence of thinking are therefore connected with the intervening process of execution rather than with the source of the initial suggestion. Indeed, genuinely fruitful and original suggestions are themselves usually the results of experience in the carrying out of undertakings. The "end" is not, in other words, an end or finality in the literal sense, but is in turn the starting point of new desires, aims and plans. By means of the process the mind gets power to make suggestions which are significant. There is now a past experience from which they can spring with an increased probability of their being worthwhile and articulate.

It goes without saying that a teacher may interfere and impose alien standards and methods during the operation. But as we have previously seen, this is not because of bringing to bear the results of previous experience, but because the habits of the teacher are so narrow and fixed, his imagination and sympathies so limited, his own intellectual horizon so bounded, that he brings them to bear in a wrong way. The fuller and richer the experience of the teacher, the more adequate his own knowledge of "traditions" the more likely is he, given the attitude of participator instead of that of master, to use them in a liberating way.

Freedom or individuality, in short, is not an original possession or gift. It is something to be achieved, to be wrought out. Suggestions as to things which may advantageously be taken, as to skill, as to methods of operation, are indispensable conditions of its achievement. These by the nature of the case must come from a sympathetic and discriminating knowledge of what has been done in the past and how it has been done.

THE SCHOOL AND SOCIETY[5]

We are apt to look at the school from an individualistic standpoint, as something between teacher and pupil, or between teacher and parent. That which interests us most is naturally the progress made by the individual child of our acquaintance, his normal physical development, his advance in ability to read, write, and figure, his growth in the knowledge of geography and history, improvement in manners, habits of promptness, order, and industry—it is from such standards as these that we judge the work of the school. And rightly so. Yet the range of the outlook needs to be enlarged. What the best and wisest parent wants for his own child, that must the community want for all of its children. Any other ideal for our schools is narrow and unlovely; acted upon, it destroys our democracy. All that society has accomplished for itself is put, through the agency of the school, at the disposal of its future members. All its better thoughts of itself it hopes to realize through the new possibilities thus opened to its future self. Here individualism and socialism are at one. Only by being true to the full growth of all the individuals who make it up, can society by any chance be true to itself. And in the self-direction thus given, nothing counts as much as the school, for, as Horace Mann said, "Where anything is growing, one former is worth a thousand re-formers."

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[5] From *The School and Society*, pp. 3-6; 10-16; 21-25; 26-28.

Whenever we have in mind the discussion of a new movement in education, it is especially necessary to take the broader, or social, view. Otherwise, changes in the school institution and tradition will be looked at as the arbitrary inventions of particular teachers; at the worst transitory fads, and at the best merely improvements in certain details—and this is the plane upon which it is too customary to consider school changes. It is as rational to conceive of the locomotive or the telegraph as personal devices. The modification going on in the method and curriculum of education is as much a product of the changed social situation, and as much an effort to meet the needs of the new society that is forming, as are changes in modes of industry and commerce.

It is to this, then, that I especially ask your attention: the effort to conceive what roughly may be termed the "New Education" in the light of larger changes in society. Can we connect this "New Education" with the general march of events? If we can, it will lose its isolated character; it will cease to be an affair which proceeds only from the over-ingenious minds of pedagogues dealing with particular pupils. It will appear as part and parcel of the whole social evolution, and, in its more general features at least, as inevitable. Let us then ask after the main aspects of the social movement; and afterward turn to the school to find what witness it gives of effort to put itself in line. And since it is quite impossible to cover the whole ground, I shall for the most part confine myself to one typical thing in the modern school movement—that which passes under the name of manual training—hoping if the relation of that to changed social conditions appears, we shall be ready to concede the point as well regarding other educational innovations.

I make no apology for not dwelling at length upon the social changes in question. Those I shall mention are writ so large that he who runs may read. The change that comes first to mind, the one that overshadows and even controls all others, is the industrial one—the application of science resulting in the great inventions that have utilized the forces of nature on a vast and inexpensive scale: the growth of a world-wide market as the object of production, of vast manufacturing centers to supply this market, of cheap and rapid means of communication and distribution between all its parts. Even as to its feebler beginnings, this change is not much more than a century old; in many of its most important aspects it falls within the short span of those now living. One can hardly believe there has been a revolution in all history so rapid, so extensive, so complete. Through it the face of the earth is making over, even as to its physical forms; political boundaries are wiped out and moved about, as if they were indeed only lines on a paper map; population is hurriedly gathered into cities from the ends of the earth; habits of living are altered with startling abruptness and thoroughness; the search for the truths of nature is infinitely stimulated and facilitated, and their application to life made not only practicable, but commercially necessary. Even our moral and religious ideas and interests, the most conservative because the deepest-lying things in our nature, are profoundly affected. That this revolution should not affect education in some other than a formal and superficial fashion is inconceivable.

When we turn to the school, we find that one of the most striking tendencies at present is toward the introduction of so-called manual training, shopwork, and the household arts—sewing and cooking.

This has not been done "on purpose," with a full consciousness that the school must now supply that factor of training formerly taken care of in the home, but rather by instinct, by experimenting and finding that such work takes a vital hold of pupils and gives them something which was not to be got in any other way.

Consciousness of its real import is still so weak that the work is often done in a half-hearted, confused, and unrelated way. The reasons assigned to justify it are painfully inadequate or sometimes even positively wrong.

If we were to cross-examine even those who are most favorably disposed to the introduction of this work into our school system, we should, I imagine, generally find the main reasons to be that such work engages the full spontaneous interest and attention of the children. It keeps them alert and active, instead of passive and receptive; it makes them more useful, more capable, and hence more inclined to be helpful at home; it prepares them to some extent for the practical duties of later life—the girls to be more efficient house managers, if not actually cooks and seamstresses; the boys (were our educational system only adequately rounded out into trade schools) for their future vocations. I do not underestimate the worth of these reasons. But the point of view is, upon the whole, unnecessarily narrow. We must conceive of work in wood and metal, of weaving, sewing, and cooking, as methods of living and learning, not as distinct studies.

We must conceive of them in their social significance, as types of the processes by which society keeps itself going, as agencies for bringing home to the child some of the primal necessities of community life, and as ways in which these needs have been met by the growing insight and ingenuity of man; in short, as instrumentalities through which the school itself shall be made a genuine form of active community life, instead of a place set apart in which to learn lessons.

A society is a number of people held together because they are working along common lines, in a common spirit, and with reference to common aims. The common needs and aims demand a growing interchange of thought and growing unity of sympathetic feeling. The radical reason that the present school cannot organize itself as a natural social unit is because just this element of common and productive activity is absent. Upon the playground, in game and sport, social organization takes place spontaneously and inevitably. There is something to do, some activity to be carried on, requiring natural divisions of labor, selection of leaders and followers, mutual cooperation and emulation. In the schoolroom the motive and the cement of social organization are alike wanting. Upon the ethical side, the tragic weakness of the present school is that it endeavors to prepare future members of the social order in a medium in which the conditions of the social spirit are eminently wanting.

The difference that appears when occupations are made the articulating centers of school life is not easy to describe in words; it is a difference in motive, of spirit and atmosphere. As one enters a busy kitchen in which a group of children are actively engaged in the preparation of food, the psychological difference, the change from more or less passive and inert recipiency and restraint to one of buoyant outgoing energy, is so obvious as fairly to strike one in the face. Indeed, to those whose image of the school is rigidly set the change is sure to give a shock. But the change in the social attitude is equally marked. The mere absorbing of facts and truths is so exclusively individual an affair that it tends very naturally to pass into selfishness. There is no obvious social motive for the acquirement of mere learning, there is no clear social gain in success thereat. Indeed, almost the only measure for success is a competitive one, in the bad sense of that term—a comparison of results in the recitation or in the examination to see which child has succeeded in getting ahead of others in storing up, in accumulating, the maximum of information. So thoroughly is this the prevailing atmosphere that for one child to help another in his task has become a school crime.

Where the school work consists in simply learning lessons, mutual assistance, instead of being the most natural form of cooperation and association, becomes a clandestine effort to relieve one's neighbor of his proper duties. Where active work is going on, all this is changed. Helping others, instead of being a form of charity which impoverishes the recipient, is simply an aid in setting free the powers and furthering the impulse of the one helped. A spirit of free communication, of interchange of ideas, suggestions, results, both successes and failures of previous experiences, becomes the dominating note of the recitation. So far as emulation enters in, it is in the comparison of individuals, not with regard to the quantity of information personally absorbed, but with reference to the quality of work done—the genuine community standard of value. In an informal but all the more pervasive way, the school life organizes itself on a social basis.

Within this organization is found the principle of school discipline or order. Of course, order is simply a thing which is relative to an end. If you have the end in view of forty or fifty children learning certain set lessons, to be recited to a teacher, your discipline must be devoted to securing that result. But if the end in view is the development of a spirit of social cooperation and community life, discipline must grow out of and be relative to such an aim. There is little of one sort of order where things are in process of construction; there is a certain disorder in any busy workshop; there is not silence; persons are not engaged in maintaining certain fixed physical postures; their arms are not folded; they are not holding their books thus and so. They are doing a variety of things, and there is the confusion, the bustle, that results from activity. But out of the occupation, out of doing things that are to produce results, and out of doing these in a social and cooperative way, there is born a discipline of its own kind and type. Our whole conception of school discipline changes when we get this point of view.

In critical moments we all realize that the only discipline that stands by us, the only training that becomes intuition, is that got through life itself. That we learn from experience, and from books or the sayings of others *only* as they are related to experience, are not mere phrases. But the school has been so set apart, so isolated from the ordinary conditions and motives of life, that the place where children are sent for discipline is the one place in the world where it is most difficult to get experience—the mother of all discipline worth the name. It is only when a narrow and fixed image of traditional school discipline dominates that one is in any danger of overlooking that deeper and infinitely wider discipline that comes from having a part to do in constructive work, in contributing to a result which, social in spirit, is none the less obvious and tangible in form—and hence in a form with reference to which responsibility may be exacted and accurate judgment passed.

The great thing to keep in mind, then, regarding the introduction into the school of various forms of active occupation, is that through them the entire spirit of the school is renewed. It has a chance to affiliate itself with life, to become the child's habitat, where he learns through directed living, instead of being only a place to learn lessons having an abstract and remote reference to some possible living to be done in the future. It gets a chance to be a miniature community, an embryonic society. This is the fundamental fact, and from this arise continuous and orderly streams of instruction. Under the industrial régime described, the child, after all, shared in the work, not for the sake of the sharing, but for the sake of the product. The educational results secured were real, yet incidental and dependent. But in the school the typical occupations followed are freed from all economic stress. The aim is not the economic value of the products, but the development of social power and insight. It is this liberation from narrow utilities, this openness to the possibilities of the human spirit, that makes these practical activities in the school allies of art and centers of science and history.

When occupations in the school are conceived in this broad and generous way, I can only stand lost in wonder at the objections so often heard, that such occupations are out of place in the school because they are materialistic, utilitarian, or even menial in their tendency. It sometimes seems to me that those who make these objections must live in quite another world. The world in which most of us live is a world in which everyone has a calling and occupation, something to do. Some are managers and others are subordinates. But the great thing for one as for the other is that each shall have had the education which enables him to see within his daily work all there is in it of large and human significance.

How many of the employed are today mere appendages to the machines which they operate! This may be due in part to the machine itself or the régime which lays so much stress upon the products of the machine; but it is certainly due in large part to the fact that the worker has had no opportunity to develop his imagination and his sympathetic insight as to the social and scientific values found in his work. At present, the impulses which lie at the basis of the industrial system are either practically neglected or positively distorted during the school period. Until the instincts of construction and production are systematically laid hold of in the years of childhood and youth, until they are trained in social directions, enriched by historical interpretation, controlled and illuminated by scientific methods, we certainly are in no position even to locate the source of our economic evils, much less to deal with them effectively.

If we go back a few centuries, we find a practical monopoly of learning. The term *possession* of learning is, indeed, a happy one. Learning was a class matter. This was a necessary result of social conditions. There were not in existence any means by which the multitude could possibly have access to intellectual resources. These were stored up and hidden away in manuscripts. Of these there were at best only a few, and it required long and toilsome preparation to be able to do anything with them. A high-priesthood of learning, which guarded the treasury of truth and which doled it out to the masses under severe restrictions, was the inevitable expression of these conditions. But, as a direct result of the industrial revolution, this has been changed. Printing was invented; it was made commercial. Books, magazines, papers were multiplied and cheapened. As a result of the locomotive and telegraph, frequent, rapid, and cheap intercommunication by mails and electricity was called into being. Travel has been rendered easy; freedom of movement, with its accompanying exchange of ideas, indefinitely facilitated. The result has been an intellectual revolution. Learning has been put into circulation. While there still is, and probably always will be, a particular class having the special business of inquiry in hand, a distinctively learned class is henceforth out of the question. It is an anachronism. Knowledge is no longer an immobile solid; it has been liquefied. It is actively moving in all the currents of society itself.

It is easy to see that this revolution, as regards the materials of knowledge, carries with it a marked change in the attitude of the individual. Stimuli of an intellectual sort pour in upon us in all kinds of ways. The merely intellectual life, the life of scholarship and of learning, thus gets a very altered value. Academic and scholastic, instead of being titles of honor, are becoming terms of reproach.

But all this means a necessary change in the attitude of the school, one of which we are as yet far from realizing the full force. Our school methods, and to a very considerable extent our curriculum, are inherited from the period when learning and command of certain symbols, affording as they did the only access to learning, were all-important. The ideals of this period are still largely in control, even where the outward methods and studies have been changed. We sometimes hear the introduction of manual training, art, and science into the elementary, and even the secondary, schools deprecated on the ground that they tend toward the production of specialists—that they detract from our present scheme of generous, liberal culture. The point of this objection would be ludicrous if it were not often so effective as to make it tragic. It is our present education which is highly specialized, one-sided, and narrow. It is an education dominated almost entirely by the mediæval conception of learning. It is something which appeals for the most part simply to the intellectual aspect of our natures, our desire to learn, to accumulate information, and to get control of the symbols of learning; not to our impulses and tendencies to make, to do, to create, to produce, whether in the form of utility or of art. The very fact that manual training, art, and science are objected to as technical, as tending toward mere specialism, is of itself as good testimony as could be offered to the specialized aim which controls current education. Unless education had been virtually identified with the exclusively intellectual pursuits, with learning as such, all these materials and methods would be welcome, would be greeted with the utmost hospitality.

But why should I make this labored presentation? The obvious fact is that our social life has undergone a thorough and radical change. If our education is to have any meaning for life, it must pass through an equally complete transformation. This transformation is not something to appear suddenly, to be executed in a day by conscious purpose. It is already in progress. Those modifications of our school system which often appear (even to those most actively concerned with them, to say nothing of their spectators) to be mere changes of detail, mere improvement within the school mechanism, are in reality signs and evidences of evolution. The introduction of active occupations, of nature-study, of elementary science, of art, of history; the relegation of the merely symbolic and formal to a secondary position; the change in the moral school atmosphere, in the relation of pupils and teachers—of discipline; the introduction of more active, expressive, and self-directing factors—all these are not mere accidents, they are necessities of the larger social evolution. It remains but to organize all these factors, to appreciate them in their fulness of meaning, and to put the ideas and ideals involved into complete, uncompromising possession of our school system. To do this means to make each one of our schools an embryonic community life, active with types of occupations that reflect the life of the larger society and permeated throughout with the spirit of art, history, and science. When the school introduces and trains each child of society into membership within such a little community, saturating him with the spirit of service, and providing him with the instruments of effective self-direction, we shall have the deepest and best guaranty of a larger society which is worthy, lovely, and harmonious.

CHAPTER FOURTEEN

EDUCATION AND HUMAN PROGRESS

PROBLEMS OF DEMOCRATIC EDUCATION [1]

THE devotion of democracy to education is a familiar fact. The superficial explanation is that a government resting upon popular suffrage cannot be successful unless those who elect and who obey their governors are educated. Since a democratic society repudiates the principle of external authority, it must find a substitute in voluntary disposition and interest; these can be created only by education. But there is a deeper explanation. A democracy is more than a form of government; it is primarily a mode of associated living, of conjoint communicated experience. The extension in space of the number of individuals who participate in an interest so that each has to refer his own action to that of others, and to consider the action of others to give point and direction to his own, is equivalent to the breaking down of those barriers of class, race, and national territory which kept men from perceiving the full import of their activity. These more numerous and more varied points of contact denote a greater diversity of stimuli to which an individual has to respond; they consequently put a premium on variation in his action. They secure a liberation of powers which remain suppressed as long as the incitations to action are partial, as they must be in a group which in its exclusiveness shuts out many interests.

The widening of the area of shared concerns, and the liberation of a greater diversity of personal capacities which characterize a democracy, are not of course the product of deliberation and conscious effort. On the contrary, they were caused by the development of modes of manufacture and commerce, travel, migration, and intercommunication which flowed from the command of science over natural energy. But after greater individualization on one hand, and a broader community of interest on the other have come into existence, it is a matter of deliberate effort to sustain and extend them. Obviously a society to which stratification into separate classes would be fatal, must see to it that intellectual opportunities are accessible to all on equable and easy terms. A society marked off into classes need be specially attentive only to the education of its ruling elements. A society which is mobile, which is full of channels for the distribution of a change occurring anywhere, must see to it that its members are educated to personal initiative and adaptability. Otherwise, they will be overwhelmed by the changes in which they are caught and whose significance or connections they do not perceive. The result will be a confusion in which a few will appropriate to themselves the results of the blind and externally directed activities of others.

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[1] From *Democracy and Education*, pp. 101-102; 113-115; *Ethics*, pp. 446-449.

It is through education in its broadest sense that the right of thought and sympathy become effective. The final value of all institutions is their educational influence; they are measured morally by the occasions they afford and the guidance they supply for the exercise of foresight, judgment, seriousness of consideration, and depth of regard. The family, the school, the church, art, especially (today) literature, nurture the affections and imagination, while schools impart information and inculcate skill in various forms of intellectual technique. In the last one hundred years, the right of each individual to spiritual self-development and self-possession, and the interest of society as a whole in seeing that each of its members has an opportunity for education, have been recognized in publicly maintained schools with their ladder from kindergarten through the college to the engineering and professional school. Men and women have had put at their disposal the materials and tools of judgment; have had opened to them the wide avenues of science, history, and art that lead into the larger world's culture. To some extent negative exemption from arbitrary restriction upon belief and thought has been developed into positive capacities of intelligence and sentiment.

Freedom of thought in a developed constructive form is, however, next to impossible for the masses of men so long as their economic conditions are precarious, and their main problem is to keep the wolf from their doors. Lack of time, hardening of susceptibility, blind preoccupation with the machinery of highly specialized industries, the combined apathy and worry consequent upon a life maintained just above the level of subsistence, are unfavorable to intellectual and emotional culture. Intellectual cowardice, due to apathy, laziness, and vague apprehension, takes the place of despotism as a limitation upon freedom of thought and speech. Uncertainty as to security of position, the welfare of a dependent family, close men's mouths from expressing their honest convictions, and blind their minds to clear perception of evil conditions. The instrumentalities of culture—churches, newspapers, universities, theatres—themselves have economic necessities which tend to make them dependent upon those who can best supply their needs. The congestion of poverty on one side and of "culture" on the other is so great that, in the words of a distinguished economist, we are still questioning "whether it is really impossible that all should start in the world with a fair chance of leading a cultured life free from the pains of poverty and the stagnating influences of a life of excessive mechanical toil." We provide free schools and pass compulsory education acts, but actively and passively we encourage conditions which limit the mass of children to the bare rudiments of spiritual nurture.

Spiritual resources are practically as much the possession of a special class, in spite of educational advance, as are material resources. This fact reacts upon the chief educative agencies—science, art, and religion. Knowledge in its ideas, language, and appeals is forced into corners; it is overspecialized, technical, and esoteric because of its isolation. Its lack of intimate connection with social practice leads to an intense and elaborate overtraining which increases its own remoteness. Only when science and philosophy are one with literature, the art of successful communication and vivid intercourse, are they liberal in effect; and this implies a society which is already intellectually and emotionally nurtured and alive. Art itself, the embodiment of ideas in forms which are socially contagious, becomes what it is so largely, a development of technical skill, and a badge of class differences. Religious emotion, the quickening of ideas and affections by recognition of their inexhaustible signification, is segregated into special cults, particular days, and peculiar exercises, and the common life is left relatively hard and barren.

In short, the limitations upon freedom both of the physical conditions and the mental values of life are at bottom expressions of one and the same divorce of theory and practice,—which makes theory remote, sterile, and technical, while practice remains narrow, harsh, and also illiberal. Yet there is more cause for hope in that so much has been accomplished, than for despondency because mental power and service are still so limited and undeveloped. The intermixture and interaction of classes and nations are very recent. Hence the opportunities for an effective circulation of sympathetic ideas and of reasonable emotions have only newly come into existence. Education as a public interest and care, applicable to all individuals, is hardly more than a century old; while a conception of the richness and complexity of the ways in which it should touch any one individual is hardly half a century old. As society takes its educative functions more seriously and comprehensively into account, there is every promise of more rapid progress in the future than in the past. For education is most effective when dealing with the immature, those who have not yet acquired the hard and fixed directing forms of adult life; while, in order to be effectively employed, it must select and propagate that which is common and hence typical in the social values that form its resources, leaving the eccentric, the partial, and exclusive gradually to dwindle. Upon some generous souls of the eighteenth century there dawned the idea that the cause of the indefinite improvement of humanity and the cause of the little child are inseparably bound together.

One of the fundamental problems of education in and for a democratic society is set by the conflict of a nationalistic and a wider social aim. The earlier cosmopolitan and "humanitarian" conception suffered both from vagueness and from lack of definite organs of execution and agencies of administration. In Europe, in the Continental states particularly, the new idea of the importance of education for human welfare and progress was captured by national interests and harnessed to do a work whose social aim was definitely narrow and exclusive. The social aim of education and its national aim were identified, and the result was a marked obscuring of the meaning of a social aim.

This confusion corresponds to the existing situation of human intercourse. On the one hand, science, commerce, and art transcend national boundaries. They are largely international in quality and method. They involve interdependencies and cooperation among the peoples inhabiting different countries. At the same time, the idea of national sovereignty has never been as accentuated in politics as it is at the present time. Each nation lives in a state of suppressed hostility and incipient war with its neighbors. Each is supposed to be the supreme judge of its own interests, and it is assumed as matter of course that each has interests which are exclusively its own. To question this is to question the very idea of national sovereignty which is assumed to be basic to political practice and political science. This contradiction (for it is nothing less) between the wider sphere of associated and mutually helpful social life and the narrower sphere of exclusive and hence potentially hostile pursuits and purposes, exacts of educational theory a clearer conception of the meaning of "social" as a function and test of education than has yet been attained.

Is it possible for an educational system to be conducted by a national state and yet the full social ends of the educative process not be restricted, constrained, and corrupted? Internally, the question has to face the tendencies, due to present economic conditions, which split society into classes some of which are made merely tools for the higher culture of others. Externally, the question is concerned with the reconciliation of national loyalty, of patriotism, with superior devotion to the things which unite men in common ends, irrespective of national political boundaries. Neither phase of the problem can be worked out by merely negative means. It is not enough to see to it that education is not actively used as an instrument to make easier the exploitation of one class by another. School facilities must be secured of such amplitude and efficiency as will in fact and not simply in name discount the effects of economic inequalities, and secure to all the wards of the nation equality of equipment for their future careers. Accomplishment of this end demands not only adequate administrative provision of school facilities, and such supplementation of family resources as will enable youth to take advantage of them, but also such modification of traditional ideals of culture, traditional subjects of study and traditional methods of teaching and discipline as will retain all the youth under educational influences until they are equipped to be masters of their own economic and social careers. The ideal may seem remote of execution, but the democratic ideal of education is a farcical yet tragic delusion except as the ideal more and more dominates our public system of education.

The same principle has application on the side of the considerations which concern the relations of one nation to another. It is not enough to teach the horrors of war and to avoid everything which would stimulate international jealousy and animosity. The emphasis must be put upon whatever binds people together in cooperative human pursuits and results, apart from geographical limitations. The secondary and provisional character of national sovereignty in respect to the fuller, freer, and more fruitful association and intercourse of all human beings with one another must be instilled as a working disposition of mind. If these applications seem to be remote from a consideration of the philosophy of education, the impression shows that the meaning of the idea of education previously developed has not been adequately grasped. This conclusion is bound up with the very idea of education as a freeing of individual capacity in a progressive growth directed to social aims. Otherwise a democratic criterion of education can only be inconsistently applied.

EDUCATION AND MORALS [2]

An English contemporary philosopher has called attention to the difference between moral ideas and ideas about morality. "Moral ideas" are ideas of any sort whatsoever which take effect in conduct and improve it, make it better than it otherwise would be. Similarly, one may say, immoral ideas are ideas of whatever sort (whether arithmetical or geographical or physiological) which show themselves in making behavior worse than it would otherwise be; and non-moral ideas, one may say, are such ideas and pieces of information as leave conduct uninfluenced for either the better or the worse. Now "ideas about morality" may be morally indifferent or immoral or moral. There is nothing in the nature of ideas *about* morality, of information *about* honesty or purity or kindness which automatically transmutes such ideas into good character or good conduct.

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[2] From *Moral Principles in Education*, pp. 1-4; *Reconstruction in Philosophy*, pp. 183-186.

This distinction between moral ideas, ideas of any sort whatsoever that have become a part of character and hence a part of the working motives of behavior, and ideas *about* moral action that may remain as inert and ineffective as if they were so much knowledge about Egyptian archæology, is fundamental to the discussion of moral education. The business of the educator—whether parent or teacher—is to see to it that the greatest possible number of ideas acquired by children and youth are acquired in such a vital way that they become *moving* ideas, motive-forces in the guidance of conduct. This demand and this opportunity make the moral purpose universal and dominant in all instruction—whatsoever the topic. Were it not for this possibility, the familiar statement that the ultimate purpose of all education is character-forming would be hypocritical pretense; for as every one knows, the direct and immediate attention of teachers and pupils must be, for the greater part of the time, upon intellectual matters. It is out of the question to keep direct moral considerations constantly uppermost. But it is not out of the question to aim at making the methods of learning, of acquiring intellectual power, and of assimilating subject-matter, such that they will render behavior more enlightened, more consistent, more vigorous than it otherwise would be.

The same distinction between "moral ideas" and "ideas about morality" explains for us a source of continual misunderstanding between teachers in the schools and critics of education outside of the schools. The latter look through the school programs, the school courses of study, and do not find any place set apart for instruction in ethics or for "moral teaching." Then they assert that the schools are doing nothing, or next to nothing, for character-training; they become emphatic, even vehement, about the moral deficiencies of public education. The school-teachers, on the other hand, resent these criticisms as an injustice, and hold not only that they do "teach morals," but that they teach them every moment of the day, five days in the week. In this contention the teachers *in principle* are in the right; if they are in the wrong, it is not because special periods are not set aside for what after all can only be teaching *about* morals, but because their own characters, or their school atmosphere and ideals, or their methods of teaching, or the subject-matter which they teach, are not such *in detail* as to bring intellectual results into vital union with character so that they become working forces in behavior. Without discussing, therefore, the limits or the value of so-called direct moral instruction (or, better, instruction *about* morals), it may be laid down as fundamental that the influence of direct moral instruction, even at its very best, is *comparatively* small in amount and slight in influence, when the whole field of moral growth through education is taken into account.

The educative process is all one with the moral process, since the latter is a continuous passage of experience from worse to better. Education has been traditionally thought of as preparation: as learning, acquiring certain things because they will later be useful. The end is remote, and education is getting ready, is a preliminary to something more important to happen later on. Childhood is only a preparation for adult life, and adult life for another life. Always the future, not the present, has been the significant thing in education: acquisition of knowledge and skill for future use and enjoyment; formation of habits required later in life in business, good citizenship and pursuit of science. Education is thought of also as something needed by some human beings merely because of their dependence upon others. We are born ignorant, unversed, unskilled, immature, and consequently in a state of social dependence. Instruction, training, moral discipline are processes by which the mature, the adult, gradually raise the helpless to the point where they can look out for themselves. The business of childhood is to grow into the independence of adulthood by means of the guidance of those who have already attained it. Thus the process of education as the main business of life ends when the young have arrived at emancipation from social dependence.

These two ideas, generally assumed but rarely explicitly reasoned out, contravene the conception that growing, or the continuous reconstruction of experience, is the only end. If at whatever period we choose to take a person, he is still in process of growth, then education is not, save as a by-product, a preparation for something coming later. Getting from the present the degree and kind of growth there is in it is education. This is a constant function, independent of age. The best thing that can be said about any special process of education, like that of the formal school period, is that it renders its subject capable of further education: more sensitive to conditions of growth and more able to take advantage of them. Acquisition of skill, possession of knowledge, attainment of culture are not ends: they are marks of growth and means to its continuing.

The contrast usually assumed between the period of education as one of social dependence and of maturity as one of social independence does harm. We repeat over and over that man is a social animal, and then confine the significance of this statement to the sphere in which sociality usually seems least evident, politics. The heart of the sociality of man is in education. The idea of education as preparation and of adulthood as a fixed limit of growth are two sides of the same obnoxious untruth. If the moral business of the adult as well as the young is a growing and developing experience, then the instruction that comes from social dependencies and interdependencies is as important for the adult as for the child. Moral independence for the adult means arrest of growth, isolation means induration. We exaggerate the intellectual dependence of childhood so that children are too much kept in leading strings, and then we exaggerate the independence of adult life from intimacy of contacts and communication with others. When the identity of the moral process with the processes of specific growth is realized, the more conscious and formal education of childhood will be seen to be the most economical and efficient means of social advance and reorganization, and it will also be evident that the test of all the institutions of adult life is their effect in furthering continued education. Government, business, art, religion, all social institutions have a meaning, a purpose. That purpose is to set free and to develop the capacities of human individuals without respect to race, sex, class or economic status. And this is all one with saying that the test of their value is the extent to which they educate every individual into the full stature of his possibility. Democracy has many meanings, but if it has a moral meaning, it is found in resolving that the supreme test of all political institutions and industrial arrangements shall be the contribution they make to the all-around growth of every member of society.

PROGRESS AND CHANGE[3]

Some persons will see only irony in a discussion of progress at the present time. Never was pessimism easier. Others will recognize in it a fine exhibition of courage and faith, and find the manifestation heartening. But discouragement affords just the occasion for a more intelligent courage. If our optimism was too complacent, it is because it was too thoughtless, too sentimental. Arguments about pessimism and optimism based upon considerations regarding fixed attainment of good and evil are mainly literary in quality. Man continues to live because he is a living creature not because reason convinces him of the certainty or probability of future satisfactions and achievements. He is instinct with activities that carry him on. Individuals here and there cave in, and most individuals sag, withdraw and seek refuge at this and that point. But man as man still has the dumb pluck of the animal. He has endurance, hope, curiosity, eagerness, love of action. These traits belong to him by structure, not by taking thought. Memory of past and foresight of future convert dumbness to some degree of articulateness. They illumine curiosity and steady courage. Then when the future arrives with its inevitable disappointments as well as fulfillments, and with new sources of trouble, failure loses something of its fatality, and suffering yields fruit of instruction not of bitterness. Humility is more demanded at our moments of triumph than at those of failure. For humility is not a caddish self-depreciation. It is the sense of our slight inability even with our best intelligence and effort to command events; a sense of our dependence upon forces that go their way without our wish and plan. Its purport is not to relax effort but to make us prize every opportunity of present growth. In morals, the infinitive and the imperative develop from the participle, present tense. Perfection means perfecting, fulfilment, fulfilling, and the good is now or never.

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[3] From "Progress" in *International Journal of Ethics*, Vol. XXVI, pp. 311-314; *Human Nature and Conduct*, pp. 289-290.

Never was there a time when it was more necessary to search for the conditions upon which progress depends, until we can reaffirm our faith in its possibility upon grounds better than those upon which we have too blindly relied. If we have been living in a fool's paradise, in a dream of automatic uninterrupted progress, it is well to be awakened. If we have been putting our trust in false gods, it is a good thing to have our confidence shaken, even rudely. We may be moved to find truer gods. If the reeds upon which we relied have broken, it is well for us to have discovered their frailty. If we have been looking in the wrong direction, we now have a sufficiently strong stimulus to direct our attention elsewhere. We can hardly welcome the war merely because it has made us think, and has made us realize how many of the things we called thoughts were asylums for laziness. But since the war has come, we may welcome whatever revelations of our stupidity and carelessness it brings with it; and set about the institution of a more manly and more responsible faith in progress than that in which we have indulged in the past.

For there can be no blinking the fact that much of that faith was childish and irresponsible. We confused rapidity of change with advance, and we took certain gains in our own comfort and ease as signs that cosmic forces were working inevitably to improve the whole state of human affairs. Having reaped where we had not sown, our undisciplined imaginations installed in the heart of history forces which were to carry on progress whether or no, and whose advantages we were progressively to enjoy.

It is easy to understand why our minds were taken captive by the spectacle of change, and why we should have confused progress with change. It is not necessary to rehearse an account of the barriers which for thousands of years kept human society static. Nor is it necessary to do more than allude to the various inventions which by facilitating migration and travel, communication and circulation of ideas and reciprocal criticism, and the production and distribution of goods in a world-wide market, have broken down those barriers. The release of energies has gone on for a century and a half to a degree which we are still impotent to realize. Persons and things have been endlessly redistributed and mingled. The fixed has given way to the mobile, the settled to the free. It was doubtless inevitable that, in its contrast with static conditions and ideals, this mobility and freedom should be taken for progress. Such it doubtless is in some respects. But the present crisis is in vain, so far as our intelligence is concerned, if it does not make us see that in the main this rapid change of conditions affords an *opportunity* for progress, but is not itself progress.

We have confused, I repeat, rapidity of change with progress. We have confused the breaking down of barriers by which advance is made possible with advance itself. Except with respect to the conservatives who have continuously bemoaned all change as destructive, these statements seem to me to sum up fairly well the intellectual history of the epoch that is closing. The economic situation, the problem of poverty by the side of great wealth, of ignorance and absence of a fair chance in life by the side of culture and unlimited opportunity, have, indeed, always served to remind us that after all we were dealing with an opportunity for progress rather than with an accomplished fact. It reminded us that the forces which were revolutionizing society might be turned in two ways: that they actually were employed for two diverse and opposed ends. But the display was not dramatic enough, not sensational enough, to force the lesson home. The war stages the lesson in a sufficiently striking way.

We had been told that the development of industry and commerce had brought about such an interdependence of peoples that war was henceforth out of the question—at least upon a vast scale. There are men now fighting who had written and lectured to that effect. But it is now clear that commerce also creates jealousies and rivalries and suspicions which are potent for war. We were told that nations could not long finance a war under modern conditions: economists had demonstrated that to the satisfaction of themselves and others. We see now that they had underrated both the production of wealth and the extent to which it could be mobilized for destructive purposes. We were told that the advance of science had made war practically impossible. We now know that science has not only rendered the enginery of war more deadly, but has also increased the powers of resistance and endurance when war comes. If all this does not demonstrate that the forces which have brought about complicated and extensive changes in the fabric of society do not of themselves generate progress I do not know what a demonstration would be. Has man subjugated physical nature only to release forces beyond his control?

Two things are apparent. First, progress depends not on the existence of social change but on the direction which human beings deliberately give that change. Secondly, ease of social change is a condition of progress. Side by side with the fact that the mere substitution of a dynamic or readily changing social structure for a static society does not accomplish progress, stands the fact that this substitution furnishes the opportunity for progress. We cannot too much insist upon the fact that until men got control of natural forces civilization was a local accident. It depended upon the ability of a small number of men to command, with assurance, the labor and services of other men. Any civilization based mainly upon ability to exploit the energies of men is precarious; it is the mercy of internal revolt and external overflow.

By exploring the heaps of rubbish scattered over the face of the earth, we are just beginning to learn how many civilizations have arisen in the past only to sink into rubbish heaps. The dominion of man over the labor of other men is a shaky basis for civilization. And civilization never attained stability upon such a basis. The scientific conquest of nature has at least given us another basis. We have now a sure method. Wholesale permanent decays of civilization are impossible. As long as there exists a group of men who understand the methods of physical science and are expert in their use, recovery, under the worst of circumstances, of the material basis of culture is sure and relatively speedy. While the modern man was deceived about the amount of progress he had made, and especially deceived about the automatic certainty of progress, he was right in thinking that for the first time in history mankind is in command of the possibility of progress. The rest is for us to say.

THE NATURE OF PROGRESS[4]

Progress is present reconstruction adding fullness and distinctness of meaning, and retrogression is a present slipping away of significance, determinations, grasp. Those who hold that progress can be perceived and measured only by reference to a remote goal, first confuse meaning with space, and then treat spatial position as absolute, as limiting movement instead of being bounded in and by movement. There are plenty of negative elements, due to conflict, entanglement and obscurity, in most of the situations of life, and we do not require a revelation of some supreme perfection to inform us whether or no we are making headway in present rectification. We move on from the worse and into, not just towards, the better, which is authenticated not by comparison with the foreign but in what is indigenous. Unless progress is a present reconstructing, it is nothing; if it cannct be told by qualities belonging to the movement of transition it can never be judged.

Men have constructed a strange dream-world when they have supposed that without a fixed ideal of a remote good to inspire them, they have no inducement to get relief from present troubles, no desires for liberation from what oppresses and for clearing-up what confuses present action. The world in which we could get enlightenment and instruction about the direction in which we are moving only from a vague conception of an unattainable perfection would be totally unlike our present world. Sufficient unto the day is the evil thereof. Sufficient it is to stimulate us to remedial action, to endeavor in order to convert strife into harmony, monotony into a variegated scene, and limitation into expansion. The converting is progress, the only progress conceivable or attainable by man. Hence every situation has its own measure and quality of progress, and the need for progress is recurrent, constant. If it is better to travel than to arrive, it is because traveling is a constant arriving, while arrival that precludes further traveling is most easily attained by going to sleep or dying. We find our clews to direction in the projected recollections of definite experienced goods not in vague anticipations, even when we label the vagueness perfection, the Ideal, and proceed to manipulate its definition with dry dialectic logic.

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[4] From *Human Nature and Conduct*, pp. 281-282.

Progress means increase of present meaning, which involves multiplication of sensed distinctions as well as harmony, unification. This statement may, perhaps, be made generally, in application to the experience of humanity. If history shows progress it can hardly be found elsewhere than in this complication and extension of the significance found within experience. It is clear that such progress brings no surcease, no immunity from perplexity and trouble. If we wished to transmute this generalization into a categorical imperative we should say: "So act as to increase the meaning of present experience." But even then in order to get instruction about the concrete quality of such increased meaning we should have to run away from the law and study the needs and alternative possibilities lying within a unique and localized situation. The imperative, like everything absolute, is sterile. Till men give up the search for a general formula of progress they will not know where to look to find it.

THE BASIS OF HUMAN PROGRESS[5]

I

In the case of the young it is patent that impulses are highly flexible starting points for activities which are diversified according to the ways in which they are used. Any impulse may become organized into almost any disposition according to the way it interacts with surroundings. Fear may become abject cowardice, prudent caution, reverence for superiors or respect for equals; an agency for credulous swallowing of absurd superstitions or for wary scepticism. A man may be chiefly afraid of the spirits of his ancestors, of officials, of arousing the disapproval of his associates, of being deceived, of fresh air, or of Bolshevism. The actual outcome depends upon how the impulse of fear is interwoven with other impulses. This depends in turn upon the outlets and inhibitions supplied by the social environment.

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[5] From *Human Nature and Conduct*, pp. 95-99; 127-130; 100-102; "Moral Theory and Practice," loc. cit., p. 197.

In a definite sense, then, a human society is always starting afresh. It is always in process of renewing, and it endures only because of renewal. We speak of the peoples of southern Europe as Latin peoples. Their existing languages depart widely from one another and from the Latin mother tongue. Yet there never was a day when this alteration of speech was intentional or explicit. Persons always meant to reproduce the speech they heard from their elders and supposed they were succeeding. This fact may stand as a kind of symbol of the reconstruction wrought in habits because of the fact that they can be transmitted and be made to endure only through the medium of the crude activities of the young or through contact with persons having different habits.

For the most part, this continuous alteration has been unconscious and unintended. Immature, undeveloped activity has succeeded in modifying adult organized activity accidentally and surreptitiously. But with the dawn of the idea of progressive betterment and an interest in new uses of impulses, there has grown up some consciousness of the extent to which a future new society of changed purposes and desires may be created by a deliberate humane treatment of the impulses of youth. This is the meaning of education; for a truly humane education consists in an intelligent direction of native activities in the light of the possibilities and necessities of the social situation. But for the most part, adults have given training rather than education. An impatient, premature mechanization of impulsive activity after the fixed pattern of adult habits of thought and affection has been desired. The combined effect of love of power, timidity in the face of the novel and a self-admiring complacency has been too strong to permit immature impulse to exercise its reorganizing potentialities. The younger generation has hardly even knocked frankly at the door of adult customs, much less been invited in to rectify through better education the brutalities and inequities established in adult habits. Each new generation has crept blindly and furtively through such chance gaps as have appeared to be left open. Otherwise it has been modeled after the old.

We have already noted how original plasticity is warped and docility is taken mean advantage of. It has been used to signify not capacity to learn liberally and generously, but willingness to learn the customs of adult associates, ability to learn just those special things which those having power and authority wish to teach. Original modifiability has not been given a fair chance to act as a trustee for a better human life. It has been loaded with convention, biased by adult convenience. It has been practically rendered into an equivalent of non-assertion of originality, a pliant accommodation to the embodied opinions of others.

Consequently docility has been identified with imitativeness, instead of with power to re-make old habits, to re-create. Plasticity and originality have been opposed to each other. That the most precious part of plasticity consists in ability to form habits of independent judgment and of inventive initiation has been ignored. For it demands a more complete and intense docility to form flexible easily re-adjusted habits than it does to acquire those which rigidly copy the ways of others. In short, among the native activities of the young are some that work towards accommodation, assimilation, reproduction, and others that work toward exploration, discovery and creation. But the weight of adult custom has been thrown upon retaining and strengthening tendencies toward conformity, and against those which make for variation and independence. The habits of the growing person are jealously kept within the limit of adult customs. The delightful originality of the child is tamed. Worship of institutions and personages themselves lacking in imaginative foresight, versatile observation and liberal thought, is enforced.

Very early in life sets of mind are formed without attentive thought, and these sets persist and control the mature mind. The child learns to avoid the shock of unpleasant disagreement, to find the easy way out, to appear to conform to customs which are wholly mysterious to him in order to get his own way—that is to display some natural impulse without exciting the unfavorable notice of those in authority. Adults distrust the intelligence which a child has while making upon him demands for a kind of conduct that requires a high order of intelligence, if it is to be intelligent at all. The inconsistency is reconciled by instilling in him "moral" habits which have a maximum of emotional empressment and adamantine hold with a minimum of understanding. These habitudes, deeply engrained before thought is awake and even before the day of experiences which can later be recalled, govern conscious later thought. They are usually deepest and most unget-at-able just where critical thought is most needed—in morals, religion and politics. These "infantilisms" account for the mass of irrationalities that prevail among men of otherwise rational tastes. These personal "hang-overs" are the cause of what the student of culture calls survivals. But unfortunately these survivals are much more numerous and pervasive than the anthropologist and historian are wont to admit. To list them would perhaps oust one from "respectable" society.

And yet the intimation never wholly deserts us that there is in the unformed activities of childhood and youth the possibilities of a better life for the community as well as for individuals here and there. This dim sense is the ground of our abiding idealization of childhood. For with all its extravangancies and uncertainties, its effusions and reticences, it remains a standing proof of a life wherein growth is normal not an anomaly, activity a delight not a task, and where habit-forming is an expansion of power not its shrinkage. Habit and impulse may war with each other, but it is a combat between the habits of adults and the impulses of the young, and not, as with the adult, a civil warfare whereby personality is rent asunder. Our usual measure for the "goodness" of children is the amount of trouble they make for grownups, which means of course the amount they deviate from adult habits and expectations. Yet by way of expiation we envy children their love of new experiences, their intentness in extracting the last drop of significance from each situation, their vital seriousness in things that to us are outworn.

The idea of universal education is as yet hardly a century old, and it is still much more of an idea than a fact, when we take into account the early age at which it terminates for the mass. Also, thus far schooling has been largely utilized as a convenient tool of the existing nationalistic and economic régimes. Hence it is easy to point out defects and perversions in every existing school system. It is easy for a critic to ridicule the religious devotion to education which has characterized for example the American republic. It is easy to represent it as zeal without knowledge, fanatical faith apart from understanding. And yet the cold fact of the situation is that the chief means of continuous, graded, economical improvement and social rectification lies in utilizing the opportunities of educating the young to modify prevailing types of thought and desire.

The young are not as yet as subject to the full impact of established customs. Their life of impulsive activity is vivid, flexible, experimenting, curious. Adults have their habits formed, fixed, at least comparatively. They are the subjects, not to say victims, of an environment which they can directly change only by a maximum of effort and disturbance. They may not be able to perceive clearly the needed changes, or be willing to pay the price of effecting them. Yet they wish a different life for the generation to come. In order to realize that wish they may create a special environment whose main function is education. In order that education of the young be efficacious in inducing an improved society, it is not necessary for adults to have a formulated definite ideal of some better state. An educational enterprise conducted in this spirit would probably end merely in substituting one rigidity for another. What is necessary is that habits be formed which are more intelligent, more sensitively percipient, more informed with foresight, more aware of what they are about, more direct and sincere, more flexibly responsive than those now current. Then they will meet their own problems and propose their own improvements.

II

Educative development of the young is not the only way in which the life of impulse may be employed to effect social ameliorations, though it is the least expensive and most orderly. No adult environment is all of one piece. The more complex a culture is, the more certain it is to include habits formed on differing, even conflicting patterns. Each custom may be rigid, unintelligent in itself, and yet this rigidity may cause it to wear upon others. The resulting attrition may release impulse for new adventures. The present time is conspicuously a time of such internal frictions and liberations. Social life seems chaotic, unorganized, rather than too fixedly regimental. Political and legal institutions are now inconsistent with the habits that dominate friendly intercourse, science and art. Different institutions foster antagonistic impulses and form contrary dispositions.

The conflict of patterns involved in institutions which are inharmonious with one another is already producing great changes. The significant point is not whether modifications shall continue to occur, but whether they shall be characterized chiefly by uneasiness, discontent and blind antagonistic struggles, or whether intelligent direction may modulate the harshness of conflict, and turn the elements of disintegration into a constructive synthesis. At all events, the social situation in "advanced" countries is such as to impart an air of absurdity to our insistence upon the rigidity of customs. There are plenty of persons to tell us that the real trouble lies in lack of fixity of habit and principle; in departure from immutable standards and structures constituted once for all. We are told that we are suffering from an excess of instinct, and from laxity of habit due to surrender to impulse as a law of life. The remedy is said to be to return from contemporary fluidity to the stable and spacious patterns of a classic antiquity that observed law and proportion: for somehow antiquity is always classic. When instability, uncertainty, erratic change are diffused throughout the situation, why dwell upon the evils of fixed habit and the need of release of impulse as an initiator of reorganizations? Why not rather condemn impulse and exalt habits of reverencing order and fixed truth?

The question is natural, but the remedy suggested is futile. It is not easy to exaggerate the extent to which we now pass from one kind of nurture to another as we go from business to church, from science to the newspaper, from business to art, from companionship to politics, from home to school. An individual is now subjected to many conflicting schemes of education. Hence habits are divided against one another, personality is disrupted, the scheme of conduct is confused and disintegrated. But the remedy lies in the development of a new morale which can be attained only as released impulses are intelligently employed to form harmonious habits adapted to one another in a new situation. A laxity due to decadence of old habits cannot be corrected by exhortations to restore old habits in their former rigidity. Even though it were abstractly desirable it is impossible. And it is not desirable because the inflexibility of old habits is precisely the chief cause of their decay and disintegration. Plaintive lamentations at the prevalence of change and abstract appeals for restoration of senile authority are signs of personal feebleness, of inability to cope with change. It is a "defense reaction."

If we had to wait upon exhortations and unembodied "ideals" to effect social alterations, we should indeed wait long. No undertaking is more tedious, because more fruitless, than the attempt to pump up moral motive forces. Set as low an estimate as we please upon the place of knowledge in action, and as high a value as we can upon the emotions, how are we to get the interest, the emotion? People are somewhat tired of hearing, "You ought to do thus and so"; they are somewhat tired of hearing, "If you would only do this and somebody else would do that, and so on, how much better everything would be." This condition of fatigue may be due to the depravity of human nature; but I think it is rather due to its goodness; human nature refuses to be moved except in the one truly human way,—through intelligence. Get the fresher, more open outlook, the refined and clarified intelligence, and the emotions will take care of themselves. They *are* there, and all they need is freeing. And it is, in power and not in word, the truth that makes free. Besides intelligence, I see but two means of moral emergence: that of hortatory preaching and that of some scheme as panacea. And both of these, it seems to me, are but attempts to replace intelligence by argument. And what, after all, is argument but halved—or quartered—intelligence?

CHAPTER FIFTEEN

THE PUBLIC AND THE STATE

SOCIAL FACTS AND POLITICAL THEORIES [1]

The preliminary to fruitful discussion of social matters is that certain obstacles shall be overcome, obstacles residing in our present conceptions of the method of social inquiry. One reason for the comparative sterility of discussion of social matters is because so much intellectual energy has gone into the suppositious problem of the relations of individualism and collectivism at large, wholesale, and because the image of the antithesis infects so many specific questions. Thereby thought is diverted from the only fruitful questions, those of investigation into factual subject-matter, and becomes a discussion of concepts. The "problem" of the relation of the concept of authority to that of freedom, of personal rights to social obligations, with only a subsumptive illustrative reference to empirical facts, has been substituted for inquiry into the *consequences* of some particular distribution, under given conditions, of specific freedoms and authorities, and for inquiry into what altered distribution would yield more desirable consequences.

The question of what transactions should be left as far as possible to voluntary initiative and agreement and what should come under the regulation of the public is a question of time, place and concrete conditions that can be known only by careful observation and reflective investigation. For it concerns consequences; and the nature of consequences and the ability to perceive and act upon them varies with the industrial and intellectual agencies which operate. A solution, or distributive adjustment, needed at one time is totally unfitted to another situation. That social "evolution" has been either from collectivism to individualism or the reverse is sheer superstition. It has consisted in a continuous re-distribution of social integrations on the one hand and of capacities and energies of individuals on the other. Individuals find themselves cramped and depressed by absorption of their potentialities in some mode of association which has been institutionalized and become dominant. They may think they are clamoring for a purely personal liberty, but what they are doing is to bring into being a greater liberty to share in other associations, so that more of their individual potentialities will be released and their personal experience enriched.

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[1] From *The Public and Its Problems*, pp. 185-186; 192-194; 3-7.

Life has been impoverished, not by a predominance of "society" in general over individuality, but by a domination of one form of association, the family, clan, church, economic institutions, over other actual and possible forms. On the other hand, the problem of exercising "social control" over individuals is in its reality that of regulating the doings and results of some individuals in order that a larger number of individuals may have a fuller and deeper experience. Since both ends can be intelligently attained only by knowledge of actual conditions in their modes of operation and their consequences, it may be confidently asserted that the chief enemy of a social thinking which would count in public affairs is the sterile and impotent, because totally irrelevant, channels in which so much intellectual energy has been expended.

If one wishes to realize the distance which may lie between "facts" and the meaning of facts, let one go to the field of social discussion. Many persons seem to suppose that facts carry their meaning along with themselves on their face. Accumulate enough of them, and their interpretation stares out at you. The development of physical science is thought to confirm the idea. But the power of physical facts to coerce belief does not reside in the bare phenomena. It proceeds from method, from the technique of research and calculation. No one is ever forced by just the collection of facts to accept a particular theory of their meaning, so long as one retains intact some other doctrine by which he can marshal them. Only when the facts are allowed free play for the suggestion of new points of view is any significant conversion of conviction as to meaning possible. Take away from physical science its laboratory apparatus and its mathematical technique, and the human imagination might run wild in its theories of interpretation even if we suppose the brute facts to remain the same.

In any event, social philosophy exhibits an immense gap between facts and doctrines. Compare, for example, the facts of politics with the theories which are extant regarding the nature of the state. If inquirers confine themselves to observed phenomena, the behavior of kings, presidents, legislators, judges, sheriffs, assessors and all other public officials, surely a reasonable consensus is not difficult to attain. Contrast with this agreement the differences which exist as to the basis, nature, functions and justification of the state, and note the seemingly hopeless disagreement. If one asks not for an enumeration of facts, but for a definition of the state, one is plunged into controversy, into a medley of contradictory clamors. According to one tradition, which claims to derive from Aristotle, the state is associated and harmonized life lifted to its highest potency; the state is at once the keystone of the social arch and is the arch in its wholeness. According to another view, it is just one of many social institutions, having a narrow but important function, that of arbiter in the conflict of other social units. Every group springs out of and realizes a positive human interest; the church, religious values; guilds, unions and corporations material economic interests, and so on. The state, however, has no concern of its own; its purpose is formal, like that of the leader of the orchestra who plays no instrument and makes no music, but who serves to keep other players who do produce music in unison with one another. Still a third view has it that the state is organized oppression, at once a social excrescence, a parasite and a tyrant. A fourth is that it is an instrument more or less clumsy for keeping individuals from quarreling too much with one another.

We are not concerned, however, with writing either a cyclopedia or history of political doctrines. So we pause with these arbitrary illustrations of the proposition that little common ground has been discovered between the factual phenomena of political behavior and the interpretation of the meaning of these phenomena. One way out of the impasse is to consign the whole matter of meaning and interpretation to political philosophy as distinguished from political science. Then it can be pointed out that futile speculation is a companion of all philosophy. The moral is to drop all doctrines of this kind overboard, and stick to facts verifiably ascertained.

The remedy urged is simple and attractive. But it is not possible to employ it. Political facts are not outside human desire and judgment. Change men's estimate of the *value* of existing political agencies and forms, and the latter change more or less. The different theories which mark political philosophy do not grow up externally to the facts which they aim to interpret; they are amplifications of selected factors among those facts. Modifiable and altering human habits sustain and generate political phenomena. These habits are not wholly informed by reasoned purpose and deliberate choice—far from it—but they are more or less amenable to them. Bodies of men are constantly engaged in attacking and trying to change some political habits, while other bodies of men are actively supporting and justifying them. It is mere pretense, then, to suppose that we can stick by the *de facto*, and not raise at some points the question of *de jure:* the question of by what right, the question of legitimacy. And such a question has a way of growing until it has become a question as to the nature of the state itself. The alternatives before us are not factually limited science on one hand and uncontrolled speculation on the other. The choice is between blind, unreasoned attack and defense on the one hand, and discriminating criticism employing intelligent method and a conscious criterion on the other.

THE NATURE OF THE PUBLIC[2]

We take our point of departure from the objective fact that human acts have consequences upon others, that some of these consequences are perceived, and that their perception leads to subsequent effort to control action so as to secure some consequences and avoid others. Following this clew, we are led to remark that the consequences are of two kinds, those which affect the persons directly engaged in a transaction, and those which affect others beyond those immediately concerned. In this distinction we find the germ of the distinction between the private and the public. When indirect consequences are recognized and there is effort to regulate them, something having the traits of a state comes into existence. When the consequences of an action are confined, or are thought to be confined, mainly to the persons directly engaged in it, the transaction is a private one. When A and B carry on a conversation together the action is a trans-action: both are concerned in it; its results pass, as it were, across from one to the other. One or other or both may be helped or harmed thereby. But, presumably, the consequences of advantage and injury do not extend beyond A and B; the activity lies between them; it is private. Yet if it is found that the consequences of conversation extend beyond the two directly concerned, that they affect the welfare of many others, the act acquires a public capacity, whether the conversation be carried on by a king and his prime minister or by Cataline and a fellow conspirator or by merchants planning to monopolize a market.

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[2] From *The Public and Its Problems*, pp. 12-16.

The distinction between private and public is thus in no sense equivalent to the distinction between individual and social, even if we suppose that the latter distinction has a definite meaning. Many private acts are social; their consequences contribute to the welfare of the community or affect its status and prospects. In the broad sense any transaction deliberately carried on between two or more persons is social in quality. It is a form of associated behavior and its consequences may influence further associations. A man may serve others, even in the community at large, in carrying on a private business. To some extent it is true, as Adam Smith asserted, that our breakfast table is better supplied by the convergent outcome of activities of farmers, grocers, and butchers carrying on private affairs with a view to private profit than it would be if we were served on a basis of philanthropy or public spirit. Communities have been supplied with works of art, with scientific discoveries, because of the personal delight found by private persons in engaging in these activities. There are private philanthropists who act so that needy persons or the community as a whole profit by the endowment of libraries, hospitals and educational institutions. In short, private acts may be socially valuable both by indirect consequences and by direct intention.

There is therefore no necessary connection between the private character of an act and its non-social or anti-social character. The public, moreover, cannot be identified with the socially useful. One of the most regular activities of the politically organized community has been waging war. Even the most bellicose of militarists will hardly contend that all wars have been socially helpful, or deny that some have been so destructive of social values that it would have been infinitely better if they had not been waged. The argument for the non-equivalence of the public and the social, in any praiseworthy sense of social, does not rest upon the case of war alone. There is no one, I suppose, so enamored of political action as to hold that it has never been short-sighted, foolish and harmful. There are even those who hold that the presumption is always that social loss will result from agents of the public doing anything which could be done by persons in their private capacity. There are many more who protest that some special public activity, whether prohibition, a protective tariff or the expanded meaning given the Monroe Doctrine, is baleful to society. Indeed every serious political dispute turns upon the question whether a given political act is socially beneficial or harmful.

Just as behavior is not anti-social or non-social because privately undertaken, it is not necessarily socially valuable because carried on in the name of the public by public agents. The argument has not carried us far, but at least it has warned us against identifying the community and its interests with the state or the politically organized community. And the differentiation may dispose us to look with more favor upon the proposition already advanced: namely, that the line between private and public is to be drawn on the basis of the extent and scope of the consequences of acts which are so important as to need control, whether by inhibition or by promotion. We distinguish private and public buildings, private and public schools, private paths and public highways, private assets and public funds, private persons and public officials. It is our thesis that in this distinction we find the key to the nature and office of the state. It is not without significance that etymologically "private" is defined in opposition to "official," a private person being one deprived of public position. The public consists of all those who are affected by the indirect consequences of transactions to such an extent that it is deemed necessary to have those consequences systematically cared for. Officials are those who look out for and take care of the interests thus affected. Since those who are indirectly affected are not direct participants in the transactions in question, it is necessary that certain persons be set apart to represent them, and see to it that their interests are conserved and protected. The buildings, property, funds, and other physical resources involved in the performance of this office are *res publica*, the common-wealth. The public as far as organized by means of officials and material agencies to care for the extensive and enduring indirect consequences of transactions between persons is the *Populus.*

THE CHARACTERISTICS OF THE STATE [3]

We can hardly select a better trait to serve as a mark and sign of the nature of a state than temporal and geographical localization. There are associations which are too narrow and restricted in scope to give rise to a public, just as there are associations too isolated from one another to fall within the same public. Part of the problem of discovery of a public capable of organization into a state is that of drawing lines between the too close and intimate and the too remote and disconnected. Immediate contiguity, face to face relationships, have consequences which generate a community of interests, a sharing of values, too direct and vital to occasion a need for political organization. Connections within a family are familiar; they are matters of immediate acquaintance and concern. The so-called blood-tie which has played such a part in demarcation of social units is largely imputed on the basis of sharing immediately in the results of conjoint behavior. What one does in the household affects others directly and the consequences are appreciated at once and in an intimate way. As we say, they "come home." Special organization to care for them is a superfluity. Only when the tie has extended to a union of families in a clan and of clans in a tribe do consequences become so indirect that special measures are called for. The neighborhood is constituted largely on the same pattern of association that is exemplified in the family. Custom and measures improvised to meet special emergencies as they arise suffice for its regulation.

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[3] From *The Public and Its Problems*, pp. 39-44; 47-52; 57-62; 62-67.

At the other limit there are social groups so separated by rivers, seas and mountains, by strange languages and gods, that what one of them does—save in war—has no appreciable consequences for another. There is therefore no common interest, no public, and no need nor possibility of an inclusive state. The plurality of states is such a universal and notorious phenomenon that it is taken for granted. It does not seem to require explanation. But it sets up, as we have noted, a test difficult for some theories to meet. Except upon the basis of a freakish limitation in the common will and reason which is alleged to be the foundation of the state, the difficulty is insuperable. It is peculiar, to say the least, that universal reason should be unable to cross a mountain range and objective will be balked by a river current. The difficulty is not so great for many other theories. But only the theory which makes recognition of consequences the critical factor can find in the fact of many states a corroborating trait. Whatever is a barrier to the spread of the consequences of associated behavior by that very fact operates to set up political boundaries. The explanation is as commonplace as is the thing to be explained.

Somewhere between associations that are narrow, close and intimate and those which are so remote as to have only infrequent and casual contact lies, then, the province of a state. We do not find and should not expect to find sharp and fast demarcations. Villages and neighborhoods shade imperceptibly into a political public. Different states may pass through federations and alliances into a larger whole which has some of the marks of statehood. There are empires due to conquest where political rule exists only in forced levies of taxes and soldiers, and in which, though the word state may be used, the characteristic signs of a public are notable for their absence. There are political communities like the city-states of ancient Greece in which the fiction of common descent is a vital factor, in which household gods and worship are replaced by community divinities, shrines, and cults: states in which much of the intimacy of the vivid and prompt personal touch of the family endures, while there has been added the transforming inspiration of a varied, freer, fuller life, whose issues are so momentous that in comparison the life of the neighborhood is parochial and that of the household dull.

A second mark and evidence of the state is found in an otherwise inexplicable fact that the quantitative scope of results of conjoint behavior generates a public with need for organization. What are now crimes subject to public cognizance and adjudication were once private ebullitions, having the status now possessed by an insult proffered by one to another. An interesting phase of the transition from the relatively private to the public, at least from a limited public to a larger one, is seen in the development in England of the King's Peace. A measure instigated by desire to increase the power and profit of the royal dynasty became an impersonal public function by bare extension. The same sort of thing has repeatedly occurred when personal prerogatives have passed into normal political processes. Something of the same sort is manifested in contemporary life when modes of private business become "affected with a public interest" because of quantitative expansion.

A converse instance is presented in transfer from public to private domain of religious rites and beliefs. As long as the prevailing mentality thought that the consequences of piety and irreligion affected the entire community, religion was of necessity a public affair.

The revolution by which piety and worship were relegated to the private sphere is often attributed to the rise of personal conscience and assertion of its rights. But this rise is just the thing to be accounted for. The supposition that it was there all the time in a submerged condition and finally dared to show itself reverses the order of events. Social changes, both intellectual and in the internal composition and external relations of peoples, took place so that men no longer connected attitudes of reverence or disrespect to the gods with the weal and woe of the community. Faith and unbelief still had serious consequences, but these were now thought to be confined to the temporal and eternal happiness of the persons directly concerned. Given the other belief, and persecution and intolerance are as justifiable as is organized hostility to any crime; impiety is the most dangerous of all threats to public peace and well-being. But social changes gradually effected as one of the new functions of the life of the community the rights of private conscience and creed.

In general, behavior in intellectual matters has moved from the public to the private realm. This radical change was, of course, urged and justified on the ground of intrinsic and sacred private right. But, as in the special case of religious beliefs, it is strange, if this reason be accepted, that mankind lived so long in total unawareness of the existence of the right. In fact, the idea of a purely private area of consciousness, where whatever goes on has no external consequences, was in the first instance a product of institutional change, political and ecclesiastic, although, like other beliefs, once it was established it had political results. The observation that the interests of the community are better cared for when there is permitted a large measure of personal judgment and choice in the formation of intellectual conclusions, is an observation which could hardly have been made until social mobility and heterogeneity had brought about initiation and invention in technological matters and industry, and until secular pursuits had become formidable rivals to church and state. Even yet, however, toleration in matters of judgment and belief is largely a negative matter. We agree to leave one another alone (within limits) more from recognition of evil consequences which have resulted from the opposite course rather than from any profound belief in its positive social beneficence. As long as the latter consequence is not widely perceived, the so-called natural right to private judgment will remain a somewhat precarious rationalization of the moderate amount of toleration which has come into being. Such phenomena as the Ku Klux and legislative activity to regulate science show that the belief in liberty of thought is still superficial.

If I make an appointment with a dentist or doctor, the transaction is primarily between us. It is my health which is affected and his pocket-book, skill and reputation. But exercise of the professions has consequences so wide-spread that the examination and licensing of persons who practice them becomes a public matter. John Smith buys or sells real estate. The transaction is effected by himself and some other person. Land, however, is of prime importance to society, and the private transaction is hedged about with legal regulations; evidence of transfer and ownership has to be recorded with a public official in forms publicly prescribed. The choice of a mate and the act of sexual union are intimately personal. But the act is the condition of bearing of offspring who are the means of the perpetuation of the community. The public interest is manifested in formalities which are necessary to make a union legal and for its legal termination. Consequences, in a word, affect large numbers beyond those immediately concerned in the transaction. It is often thought that in a socialistic state the formation and dissolution of marriages would cease to have a public phase. It is possible. But it is also possible that such a state would be even more alive than is the community at present to the consequences of the union of man and woman not only upon children but upon its own well-being and stability. In that case certain regulations would be relaxed, but there might be imposed stringent rules as to health, economic capacity and psychologic compatibility as preconditions of wedlock.

A third mark of the public organized as a state is that it is concerned with modes of behavior which are old and hence well established, engrained. Invention is a peculiarly personal act, even when a number of persons combine to make something new. A novel idea is the kind of thing that has to occur to somebody in the singular sense. A new project is something to be undertaken and set agoing by private initiative. The newer an idea or plan, the more it deviates from what is already recognized and established in practice. By the nature of the case an innovation is a departure from the customary. Hence the resistance it is likely to encounter. We, to be sure, live in an era of discoveries and inventions. Speaking generically, innovation itself has become a custom. Imagination is wonted to it; it is expected. When novelties take the form of mechanical appliances, we incline to welcome them. But this is far from always having been the case. The rule has been to look with suspicion and greet with hostility the appearance of anything new, even a tool or utensil. For an innovation *is* a departure, and one which brings in its train some incalculable disturbance of the behavior to which we have grown used and which seems "natural." As a recent writer has clearly shown, inventions have made their way insidiously; and because of some immediate convenience. If their effects, their long-run consequences, in altering habits of behavior had been foreseen, it is safe to say that most of them would have been destroyed as wicked, just as many of them were retarded in adoption because they were felt to be sacrilegious.[4] In any case, we cannot think of their invention being the work of the state.[5]

The organized community is still hesitant with reference to new ideas of a non-technical and non-technological nature. They are felt to be disturbing to social behavior; and rightly so, as far as old and established behavior is concerned. Most persons object to having their habits unsettled, their habits of belief no less than habits of overt action. A new idea *is* an unsettling of received beliefs; otherwise, it would not be a new idea. This is only to say that the production of new ideas is peculiarly a private performance. About the most we can ask of the state, judging from states which have so far existed, is that it put up with their production by private individuals without undue meddling. A state which will organize to manufacture and disseminate new ideas and new ways of thinking may come into existence some time, but such a state is a matter of faith, not sight. When it comes it will arrive because the beneficial consequences of new ideas have become an article of common faith and repute. It may, indeed, be said that even now the state provides those conditions of security which are necessary if private persons are to engage effectually in discovery and invention. But this service is a by-product; it is foreign to the grounds on which the conditions in question are maintained by the public. And it must be offset by noting the extent to which the state of affairs upon which the public heart is most set is unfavorable to thinking in other than technical lines. In any case, it is absurd to expect the public, because it is called in no matter how eulogistic a sense the state, to rise above the intellectual level of its average constituents.

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[4] Ayers, "Science: The False Messiah," Chapter IV, The Lure of Machinery.

[5] The one obvious exception concerns the tools of waging war. With respect to them, the state has often shown itself as greedy as it has been reluctant and behindhand with reference to other inventions.

When, however, a mode of behavior has become old and familiar, and when an instrumentality has come into use as a matter of course, provided it is a prerequisite of other customary pursuits, it tends to come within the scope of the state. An individual may make his own track in a forest; but highways are usually public concerns. Without roads which one is free to use at will, men might almost as well be castaways on a desert island. Means of transit and communication affect not only those who utilize them but all who are dependent in any way upon what is transported, whether as producers or consumers. The increase of easy and rapid intercommunication means that production takes place more and more for distant markets and it puts a premium upon mass-production. Thus it becomes a disputed question whether railroads as well as highways should not be administered by public officials, and in any case some measure of official regulation is instituted, as they become settled bases of social life.

The tendency to put what is old and established in uniform lines under the regulation of the state has psychological support. Habits economize intellectual as well as muscular energy. They relieve the mind from thought of means, thus freeing thought to deal with new conditions and purposes. Moreover, interference with a well-established habit is followed by uneasiness and antipathy. The efficiency of liberation from attention to whatever is regularly recurrent is reenforced by an emotional tendency to get rid of bother. Hence there is a general disposition to turn over activities which have become highly standardized and uniform to representatives of the public. It is possible that the time will come when not only railways will have become routine in their operation and management, but also existing modes of machine production, so that business men instead of opposing public ownership will clamor for it in order that they may devote their energies to affairs which involve more novelty, variation and opportunities for risk and gain. They might conceivably, even under a régime of continued private property in general, no more wish to be bothered with routinized operations than they would want to take over the care of public streets. Even now the question of the public's taking charge of the machinery of the manufacture of goods is less a matter of wholesale "individualism" versus "socialism" than it is of the ratio of the experimental and novel in their management to the habitual and matter-of-course; of that which is taken for granted as a condition of other things to that which is significant in its own operation.

A fourth mark of the public is indicated by the idea that children and other dependents (such as the insane, the permanently helpless) are peculiarly its wards.

When the parties involved in any transaction are unequal in status, the relationship is likely to be one-sided, and the interests of one party to suffer. If the consequences appear serious, especially if they seem to be irretrievable, the public brings to bear a weight that will equalize conditions. Legislatures are more ready to regulate the hours of labor of children than of adults, of women than of men. In general, labor legislation is justified against the charge that it violates liberty of contract on the ground that the economic resources of the parties to the arrangement are so disparate that the conditions of a genuine contract are absent; action by the state is introduced to form a level on which bargaining takes place. Labor unions often object, however, to such "paternalistic" legislation on the ground that voluntary combinations to ensure collective bargaining is better for those concerned than action taken without the active participation of laborers. The general objection that paternalism tends to keep those affected by it permanently in the status of children, without an impetus to help themselves, rests on the same basis. The difference here is nevertheless not as to the principle that inequality of status may call for public intervention, but as to the best means of securing and maintaining equality.

There has been a steady tendency for the education of children to be regarded as properly a state charge in spite of the fact that children are primarily the care of a family. But the period in which education is possible to an effective degree is that of childhood; if this time is not taken advantage of the consequences are irreparable. The neglect can rarely be made up later. In the degree, then, that a certain measure of instruction and training is deemed to have significant consequences for the social body, rules are laid down affecting the action of parents in relation to their children, and those who are not parents are taxed—Herbert Spencer to the contrary notwithstanding—to maintain schools. Again, the consequences of neglect of safeguards in industries involving machines which are dangerous and those presenting unhygienic conditions, are so serious and irretrievable that the modern public has intervened to maintain conditions conducive to safety and health. Movements which aim at insurance against illness and old-age under governmental auspices illustrate the same principle. While public regulation of a minimum wage is still a disputed matter, the argument in behalf of it appeals to the criterion stated. The argument in effect is that a living wage is a matter of such serious indirect consequences to society that it cannot be safely left to the parties directly concerned, owing to the fact that immediate need may incapacitate one party to the transaction from effective bargaining.

In what has been said there is no attempt to lay down criteria to be applied in a predetermined way to ensure just such and such results. We are not concerned to predict the special forms which state action will take in the future. We have simply been engaged in pointing out the marks by which public action as distinct from private is characterized. Transactions between singular persons and groups bring a public into being when their indirect consequences—their effects beyond those immediately engaged in them—are of importance. Vagueness is not eliminated from the idea of importance. But at least we have pointed out some of the factors which go to make up importance: namely, the far-reaching character of consequences, whether in space or time; their settled, uniform and recurrent nature, and their irreparableness. Each one of these matters involves questions of degree. There is no sharp and clear line which draws itself, pointing out beyond peradventure, like the line left by a receding high tide, just where a public comes into existence which has interests so significant that they must be looked after and administered by special agencies, or governmental officers. Hence there is often room for dispute. The line of demarcation between actions left to private initiative and management and those regulated by the state has to be discovered experimentally.

The very fact that the public depends upon consequences of acts and the perception of consequences, while its organization into a state depends upon the ability to invent and employ special instrumentalities, shows how and why publics and political institutions differ widely from epoch to epoch and from place to place. To suppose that an *a priori* conception of the intrinsic nature and limits of the individual on one side and the state on the other will yield good results once for all is absurd. If, however, the state has a definite nature, as it should have if it were formed by fixed causal agencies, or if individuals have a nature fixed once for all apart from conditions of association, a final and wholesale partitioning of the realms of personal and state activity is the logical conclusion. The failure of such a theory to reach practical solutions is, therefore, a further confirmation of the theory which emphasizes the consequences of activity as the essential affair.

In conclusion, we shall make explicit what has been implied regarding the relation to one another of public, government and state. There have been two extreme views about this point. On one hand, the state has been identified with government. On the other hand, the state, having a necessary existence of its own, *per se*, is said then to proceed to form and employ certain agencies forming government, much as a man hires servants and assigns them duties. The latter view is appropriate when the causal agency theory is relied upon. Some force, whether a general will or the singular wills of assembled individuals, calls the state into being. Then the latter as a secondary operation chooses certain persons through whom to act. Such a theory helps those who entertain it to retain the idea of the inherent sanctity of the state. Concrete political evils such as history exhibits in abundance can be laid at the door of fallible and corrupt governments, while the state keeps its honor unbesmirched. The identification of the state with government has the advantage of keeping the mind's eye upon concrete and observable facts; but it involves an unaccountable separation between rulers and people. If a government exists by itself and on its own account, why should there be government? Why should there persist the habits of loyalty and obedience which permit it to rule?

The hypothesis which has been advanced frees us from the perplexities which cluster about both of these two notions. The lasting, extensive and serious consequences of associated activity bring into existence a public. In itself it is unorganized and formless. By means of officials and their special powers it becomes a state. A public articulated and operating through representative officers is the state; there is no state without a government, but also there is none without the public.

This is a convenient place for making explicit a qualification which has to be understood throughout. The words "government" and "officers" are taken functionally, not in terms of some particular structure which is so familiar to us that it leaps to the eyes when these words are used. Both words in their functional meaning are much wider in application than what is meant when we speak, say, of the government and officers of Great Britain or the United States. In households, for example, there have usually been rulers and "heads"; the parents, for most purposes the father, have been officers of the family interest. The "patriarchal family" presents an emphatic intensification, on account of comparative isolation of the household from other social forms, of what exists in lesser degree in almost all families. The same sort of remark applies to the use of the term "states," in connection with publics. The text is concerned with modern conditions, but the hypothesis propounded is meant to hold good generally. So to the patent objection that the state is a very modern institution, it is replied that while modernity is a property of those *structures* which go by the name of states, yet all history, or almost all, records the exercise of analogous *functions*. The argument concerns these functions and the mode of their operation, no matter what word be used, though for the sake of brevity the word "state," like the words "government" and "officer," has been freely employed.

THE ORIGIN OF THE DEMOCRATIC STATE[6]

Democracy is a word of many meanings. Some of them are of such a broad social and moral import as to be irrelevant to our immediate theme. But one of the meanings is distinctly political, for it denotes a mode of government, a specified practice in selecting officials and regulating their conduct as officials. This is not the most inspiring of the different meanings of democracy; it is comparatively special in character. But it contains about all that is relevant to *political* democracy. Now the theories and practices regarding the selection and behavior of public officials which constitute political democracy represent an effort in the first place to counteract the forces that have so largely determined the possession of rule by accidental and irrelevant factors, and in the second place an effort to counteract the tendency to employ political power to serve private instead of public ends. To discuss democratic government at large apart from its historic background is to miss its point and to throw away all means for an intelligent criticism of it. In taking the distinctively historical point of view we do not derogate from the important and even superior claims of democracy as an ethical and social ideal. We limit the topic for discussion in such a way as to avoid "the great bad," the mixing of things which need to be kept distinct.

Viewed as a historical tendency exhibited in a chain of movements which have affected the forms of government over almost the entire globe during the last century and a half, democracy is a complex affair. There is a current legend to the effect that the movement originated in a single clear-cut idea, and has proceeded by a single unbroken impetus to unfold itself to a predestined end, whether triumphantly glorious or fatally catastrophic. The myth is perhaps rarely held in so simple and unmixed a form. But something approaching it is found whenever men either praise or damn democratic government absolutely, that is, without comparing it with alternative polities. Even the least accidental, the most deliberately planned, political forms do not embody some absolute and unquestioned good. They represent a choice, amid a complex of contending forces, of that particular possibility which appears to promise the most good with the least attendant evil.

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[6] From *The Public and Its Problems*, pp. 82-85.

Such a statement, moreover, immensely oversimplifies. Political forms do not originate in a once for all way. The greatest change, once it is accomplished, is simply the outcome of a vast series of adaptations and responsive accommodations, each to its own particular situation. Looking back, it is possible to make out a trend of more or less steady change in a single direction. But it is, we repeat, mere mythology to attribute such unity of result as exists (which is always easy to exaggerate) to single force or principle. Political democracy has emerged as a kind of net consequence of a vast multitude of responsive adjustments to a vast number of situations, no two of which were alike, but which tended to converge to a common outcome. The democratic convergence, moreover, was not the result of distinctively political forces and agencies. Much less is democracy the product *of* democracy, of some inherent nisus, or immanent idea. The temperate generalization to the effect that the unity of the democratic movement is found in effort to remedy evils experienced in consequence of prior political institutions realizes that it proceeded step by step, and that each step was taken without foreknowledge of any ultimate result, and, for the most part, under the immediate influence of a number of differing impulses and slogans.

It is even more important to realize that the conditions out of which the efforts at remedy grew and which it made possible for them to succeed were primarily non-political in nature. For the evils were of long standing, and any account of the movement must raise two questions: Why were efforts at improvement not made earlier, and, when they were made, why did they take just the form which they did take? The answers to both questions will be found in distinctive religious, scientific and economic changes which finally took effect in the political field, being themselves primarily non-political and innocent of democratic intent. Large questions and far-ranging ideas and ideals arose during the course of the movement. But theories of the nature of the individual and his rights, of freedom and authority, progress and order, liberty and law, of the common good and a general will, of democracy itself, did not produce the movement. They reflected it in thought; after they emerged, they entered into subsequent strivings and had practical effect.

THE STATE AND HUMAN SOCIETY [7]

There can be no doubt of the tremendously important rôle played by the modern territorial national state. The formation of these states has been the center of modern political history. France, Great Britain, Spain were the first peoples to attain nationalistic organization, but in the nineteenth century their example was followed by Japan, Germany and Italy, to say nothing of a large number of smaller states, Greece, Servia, Bulgaria, etc. As everybody knows, one of the most important phases of the recent World War was the struggle to complete the nationalistic movement, resulting in the erection of Bohemia, Poland, etc., into independent states, and the accession of Armenia, Palestine, etc., to the rank of candidates.

The struggle for the supremacy of the State over other forms of organization was directed against the power of minor districts, provinces, principalities, against the dispersion of power among feudal lords as well as, in some countries, against the pretensions of an ecclesiastic potentate. The "State" represents the conspicuous culmination of the great movement of social integration and consolidation taking place in the last few centuries, tremendously accelerated by the concentrating and combining forces of steam and electricity. Naturally, inevitably, the students of political science have been preoccupied with this great historic phenomenon, and their intellectual activities have been directed to its systematic formulation. Because the contemporary progressive movement was to establish the unified state against the inertia of minor social units and against the ambitions of rivals for power, political theory developed the dogma of the sovereignty of the national state, internally and externally.

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[7] From *Reconstruction in Philosophy*, pp. 201-205; *The Public and Its Problems*, pp. 73-74.

As the work of integration and consolidation reaches its climax, the question arises, however, whether the national state, once it is firmly established and no longer struggling against strong foes, is not just an instrumentality for promoting and protecting other and more voluntary forms of association, rather than a supreme end in itself. Two actual phenomena may be pointed to in support of an affirmative answer. Along with the development of the larger, more inclusive and more unified organization of the state has gone the emancipation of individuals from restrictions and servitudes previously imposed by custom and class status. But the individuals freed from external and coercive bonds have not remained isolated. Social molecules have at once recombined in new associations and organizations. Compulsory associations have been replaced by voluntary ones; rigid organizations by those more amenable to human choice and purposes—more directly changeable at will. What upon one side looks like a movement toward individualism, turns out to be really a movement toward multiplying all kinds and varieties of associations: Political parties, industrial corporations, scientific and artistic organizations, trade unions, churches, schools, clubs and societies without number, for the cultivation of every conceivable interest that men have in common. As they develop in number and importance, the state tends to become more and more a regulator and adjuster among them, defining the limits of their actions, preventing and settling conflicts.

Its "supremacy" approximates that of the conductor of an orchestra, who makes no music himself but who harmonizes the activities of those who in producing it are doing the thing intrinsically worth while. The state remains highly important—but its importance consists more and more in its power to foster and coordinate the activities of voluntary groupings. Only nominally is it in any modern community the end for the sake of which all the other societies and organizations exist. Groupings for promoting the diversity of goods that men share have become the real social units. They occupy the place which traditional theory has claimed either for mere isolated individuals or for the supreme and single political organization. Pluralism is well ordained in present political practice and demands a modification of hierarchical and monistic theory. Every combination of human forces that adds its own contribution of value to life has for that reason its own unique and ultimate worth. It cannot be degraded into a means to glorify the State. One reason for the increased demoralization of war is that it forces the State into an abnormally supreme position.

The other concrete fact is the opposition between the claim of independent sovereignty in behalf of the territorial national state and the growth of international and what have well been called trans-national interests. The weal and woe of any modern state is bound up with that of others. Weakness, disorder, false principles on the part of any state are not confined within its boundaries. They spread and infect other states. The same is true of economic, artistic and scientific advances.

The hypothesis which we have supported has obvious points of contact with what is known as the pluralistic conception of the state. It presents also a marked point of difference. Our doctrine of plural forms is a statement of a fact: that there exist a plurality of social groupings, good, bad and indifferent. It is not a doctrine which prescribes inherent limits to state action. It does not intimate that the function of the state is limited to settling conflicts among other groups, as if each one of them had a fixed scope of action of its own. Were that true, the state would be only an umpire to avert and remedy trespasses of one group upon another. Our hypothesis is neutral as to any general, sweeping implications as to how far state activity may extend. It does not indicate any particular polity of public action. At times, the consequences of the conjoint behavior of some persons may be such that a large public interest is generated which can be fulfilled only by laying down conditions which involve a large measure of reconstruction within that group. There is no more an inherent sanctity in a church, trade-union, business corporation, or family institution than there is in the state. Their value is also to be measured by their consequences. The consequences vary with concrete conditions; hence at one time and place a large measure of state activity may be indicated and at another time a policy of quiescence and laissez-faire. Just as publics and states vary with conditions of time and place, so do the concrete functions which should be carried on by states. There is no antecedent universal proposition which can be laid down because of which the functions of a state should be limited or should be expanded. Their scope is something to be critically and experimentally determined.

CHAPTER SIXTEEN

HUMAN PROGRESS AND SOCIAL ORGANIZATION

THE MEANS FOR SOCIAL PROGRESS[1]

It seems to me that about all that I can say about the future of progress at the present time is that it depends upon man to say whether he wants it or not. If we want it, we can have it—if we are willing to pay the price in effort, especially in effort of intelligence. The conditions are at hand. We do not of course wholly control the energies of nature; we shall never wholly do so. But we are in possession of a method which enables us to forecast desirable physical changes and to set about securing them. So much is the secure result of the scientific revolution of the last three hundred years. We also know that it is not possible to bring about these physical changes without effecting at the same time vast social changes. The men who invented the stationary and locomotive steam engine, and the men who have since then harnessed both steam and electricity to all sorts of ends, have produced social changes by the side of which those produced by Alexander, Cæsar and Napoleon are insignificant. And the same process is going on as long as applied science goes on, whatever we may think about its worth.

But, I repeat, while social change, thus brought about, represents an indispensable condition of progress, it does not present a guarantee for progress. The latter depends upon deliberate human foresight and socially constructive work. Hence we have first of all to change our attitude. Instead of congratulating ourselves upon its presence and certainty as a gift of the gods, as we have been wont to do, we have to recognize that it is a human and intentional product—as much so in principle as a telephone or irrigation or a self-binding reaper, and as much more so in fact as the factors upon which it depends are more complex and more elusive.

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[1] From "Progress" in *International Journal of Ethics,* Vol. XXVI, pp. 314-318.

The doctrine of evolution has been popularly used to give a kind of cosmic sanction to the notion of an automatic and wholesale progress in human affairs. Our part, the human part, was simply to enjoy the usufruct. Evolution inherited all the goods of Divine Providence and had the advantage of being in fashion. Even a great and devastating war is not too great a price to pay for an awakening from such an infantile and selfish dream. Progress is not automatic; it depends upon human intent and aim and upon acceptance of responsibility for its production. It is not a wholesale matter, but a retail job, to be contracted for and executed in sections. I doubt if the whole history of mankind shows any more vicious and demoralizing ethic than the recent widespread belief that each of us, as individuals and as classes, might safely and complacently devote ourselves to increasing our own possessions, material, intellectual, and artistic, because progress was inevitable anyhow.

In dwelling upon the need of conceiving progress as a responsibility and not as an endowment, I put primary emphasis upon responsibility for intelligence, for the power which foresees, plans and constructs in advance. We are so overweighted by nature with impulse, sentiment and emotion, that we are always tempted to rely unduly upon the efficacy of these things. Especially do we like to entrust our destiny to them when they go by eulogistic names—like altruism, kindliness, peaceful feelings. But in spite of the dogma which measures progress by increase in these sentiments, there is no reason that I know of to suppose that the basic fund of these emotions has increased appreciably in thousands and thousands of years. Man is equipped with these feelings at birth as well as with emotions of fear, anger, emulation and resentment.

What appears to be an increase in one set and a decrease in the other set is, in reality, a change in their social occasions and social channels.

Civilized man has not a better endowment of ear and eye than savage man; but his social surroundings give him more important things to see and hear than the savage has, and he has the wit to devise instruments to reinforce his eye and ear—the telegraph and telephone, the microscope and telescope. But there is no reason for thinking that he has less natural aggressiveness or more natural altruism—or will ever have—than the barbarian. But he may live in social conditions that create a relatively greater demand for the display of kindliness and which turn his aggressive instincts into less destructive channels. There is at any time a sufficient amount of kindly impulses possessed by man to enable him to live in amicable peace with all his fellows; and there is at any time a sufficient equipment of bellicose impulses to keep him in trouble with his fellows. An intensification of the exhibition of one may accompany an intensification of the display of the other, the only difference being that social arrangements cause the kindly feelings to be displayed toward one set of fellows and the hostile impulses toward another set. Thus, as everybody knows, the hatred toward the foreigner characterizing peoples at war is attended by an unusual manifestation of mutual affection and love within each warring group. So characteristic is this fact that that man was a good psychologist who said that he wished that this planet might get into war with another planet, as that was the only effective way he saw of developing a world-wide community of interest in this globe's population.

I am not saying this to intimate that all impulses are equally good or that no effective control of any of them is possible. My purpose is, in lesser part, to suggest the futility of trying to secure progress by immediate or direct appeal to even the best feelings in our makeup. In the main, there is an adequate fund of such feelings.

What is lacking is adequate social stimulation for their exercise as compared with the social occasions which evoke less desirable emotions. In greater part, my purpose is to indicate that since the variable factor, the factor which may be altered indefinitely, is the social conditions which call out and direct the impulses and sentiments, the positive means of progress lie in the application of intelligence to the construction of proper devices. Theoretically, it is possible to have social arrangements which will favor the friendly tendencies of human nature at the expense of the bellicose and predatory ones, and which will direct the latter into channels where they will do the least harm or even become means of good. Practically this is a matter of the persistent use of reflection in the study of social conditions and the devising of social contrivances.

I have already said that the indispensable preliminary condition of progress has been supplied by the conversion of scientific discoveries into inventions which turn physical energy, the energy of sun, coal and iron, to account. Neither the discoveries nor the inventions were the product of unconscious physical nature. They were the product of human devotion and application, of human desire, patience, ingenuity and mother wit. The problem which now confronts us, the problem of progress, is the same in kind, differing in subject-matter. It is a problem of discovering the needs and capacities of collective human nature as we find it aggregated in racial or national groups on the surface of the globe, and of inventing the social machinery which will set available powers operating for the satisfaction of those needs.

This is a large order. But it is not, with reasonable limits, one hopeless to undertake. It is much more within the bounds of legitimate imagination than would have been, five centuries ago, the subjugation of physical nature which has since been achieved. The chief difficulty lies in the primary step: it consists in getting a sufficiently large number of persons to believe in its desirability and practicability. In spite of its discipline by the achievements of physical science our imagination is cowardly and irresponsible. We do not believe that study, foresight and planning will do for the human relations of human beings what they have done for our relationship to physical nature.

We are still living under the dominion of a laissez-faire philosophy. I do not mean by this an individualistic as against a socialistic philosophy. I mean by it a philosophy which trusts the direction of human affairs to nature, or Providence, or evolution, or manifest destiny—that is to say, to accident—rather than to a contriving and constructive intelligence. To put our faith in the collective state instead of in individual activity is quite as laissez-faire a proceeding as to put it in the results of voluntary private enterprise. The only genuine opposite to a go-as-you-please let-alone philosophy is a philosophy which studies specific social needs and evils with a view to constructing the special social machinery for which they call.

THE SUBMERGENCE OF THE MODERN PUBLIC [2]

In spite of attained integration, or rather perhaps because of its nature, the Public seems to be lost; it is certainly bewildered. The government, officials and their activities, are plainly with us. Legislatures make laws with luxurious abandon; subordinate officials engage in a losing struggle to enforce some of them; judges on the bench deal as best they can with the steadily mounting pile of disputes that come before them. But where is the public which these officials are supposed to represent? How much more is it than geographical names and official titles? The United States, the state of Ohio or New York, the county of this and the city of that? Is the public much more than what a cynical diplomat once called Italy: a geographical expression? Just as philosophers once imputed a substance to qualities and traits in order that the latter might have something in which to inhere and thereby gain a conceptual solidity and consistency which they lacked on their face, so perhaps our political "common-sense" philosophy imputes a public only to support and substantiate the behavior of officials. How can the latter be public officers, we despairingly ask, unless there is a public? If a public exists, it is surely as uncertain about its own whereabouts as philosophers since Hume have been about the residence and make-up of the self.

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[2] From *The Public and Its Problems*, pp. 116-117; 123; 125-126; 134-135; 137-139.

What is the public? If there is a public, what are the obstacles in the way of its recognizing and articulating itself? Is the public a myth? Or does it come into being only in periods of marked social transition when crucial alternative issues stand out, such as that between throwing one's lot in with the conservation of established institutions or with forwarding new tendencies? In a reaction against dynastic rule which has come to be felt as despotically oppressive? In a transfer of social power from agrarian classes to industrial?

What, after all, is the public under present conditions? What are the reasons for its eclipse? What hinders it from finding and identifying itself? By what means shall its inchoate and amorphous estate be organized into effective political action relevant to present social needs and opportunities? What has happened to the Public in the century and a half since the theory of political democracy was urged with such assurance and hope?

Indirect, extensive, enduring and serious consequences of conjoint and interacting behavior call a public into existence having a common interest in controlling these consequences. But the machine age has so enormously expanded, multiplied, intensified and complicated the scope of the indirect consequences, has formed such immense and consolidated unions in action, on an impersonal rather than a community basis, that the resultant public cannot identify and distinguish itself.

It is not that there is no public, no large body of persons having a common interest in the consequences of social transactions. There is too much public, a public too diffused and scattered and too intricate in composition. And there are too many publics, for conjoint actions which have indirect, serious and enduring consequences are multitudinous beyond comparison, and each one of them crosses the others and generates its own group of persons especially affected with little to hold these different publics together in an integrated whole.

Political apathy, which is a natural product of the discrepancies between actual practices and traditional machinery, ensues from inability to identify one's self with definite issues. These are hard to find and locate in the vast complexities of current life. When traditional war-cries have lost their import in practical policies which are consonant with them, they are readily dismissed as bunk. Only habit and tradition, rather than reasoned conviction, together with a vague faith in doing one's civic duty, send to the polls a considerable percentage of the 50 per cent. who still vote. And of them it is a common remark that a large number vote against something or somebody rather than for anything or anybody, except when powerful agencies create a scare. The old principles do not fit contemporary life as it is lived, however well they may have expressed the vital interests of the times in which they arose. Thousands feel their hollowness even if they cannot make their feeling articulate. The confusion which has resulted from the size and ramifications of social activities has rendered men skeptical of the efficiency of political action. Who is sufficient unto these things? Men feel that they are caught in the sweep of forces too vast to understand or master. Thought is brought to a standstill and action paralyzed. Even the specialist finds it difficult to trace the chain of "cause and effect"; and even he operates only after the event, looking backward, while meantime social activities have moved on to effect a new state of affairs.

The picture is not complete without taking into account the many competitors with effective political interest. Political concerns have, of course, always had strong rivals. Persons have always been, for the most part, taken up with their more immediate work and play. The power of "bread and the circus" to divert attention from public matters is an old story. But now the industrial conditions which have enlarged, complicated and multiplied public interests have also multiplied and intensified formidable rivals to them. In countries where political life has been most successfully conducted in the past, there was a class specially set aside, as it were, who made political affairs their special business. Aristotle could not conceive a body of citizens competent to carry on politics consisting of others than those who had leisure, that is, of those who were relieved from all other preoccupations, especially that of making a livelihood. Political life, till recent times, bore out his belief. Those who took an active part in politics were "gentlemen," persons who had had property and money long enough, and enough of it, so that its further pursuit was vulgar and beneath their station. To-day, so great and powerful is the sweep of the industrial current, the person of leisure is usually an idle person. Persons have their own business to attend to, and "business" has its own precise and specialized meaning. Politics thus tends to become just another "business": the especial concern of bosses and the managers of the machine.

The increase in the number, variety and cheapness of amusements represents a powerful diversion from political concern. The members of an inchoate public have too many ways of enjoyment, as well as of work, to give much thought to organization into an effective public. Man is a consuming and sportive animal as well as a political one. What is significant is that access to means of amusement has been rendered easy and cheap beyond anything known in the past. The present era of "prosperity" may not be enduring. But the movie, radio, cheap reading matter and motor car with all they stand for have come to stay. That they did not originate in deliberate desire to divert attention from political interests does not lessen their effectiveness in that direction. The political elements in the constitution of the human being, those having to do with citizenship, are crowded to one side. In most circles it is hard work to sustain conversation on a political theme; and once initiated, it is quickly dismissed with a yawn. Let there be introduced the topic of the mechanism and accomplishment of various makes of motor cars or the respective merits of actresses, and the dialogue goes on at a lively pace. The thing to be remembered is that this cheapened and multiplied access to amusement is the product of the machine age, intensified by the business tradition which causes provision of means for an enjoyable passing of time to be one of the most profitable of occupations.

WHAT A COMMUNITY IS[3]

Associated or joint activity is a condition of the creation of a community. But association itself is physical and organic, while communal life is moral, that is emotionally, intellectually, consciously sustained. Human beings combine in behavior as directly and unconsciously as do atoms, stellar masses and cells; as directly and unknowingly as they divide and repel. They do so in virtue of their own structure, as man and woman unite, as the baby seeks the breast and the breast is there to supply its need. They do so from external circumstances, pressure from without, as atoms combine or separate in presence of an electric charge, or as sheep huddle together from the cold. Associated activity needs no explanation; things are made that way. But no amount of aggregated collective action of itself constitutes a community.

For beings who observe and think, and whose ideas are absorbed by impulses and become sentiments and interests,

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[3] From *The Public and Its Problems*, pp. 151-155.

"we" is as inevitable as "I." But "we" and "our" exist only when the consequences of combined action are perceived and become an object of desire and effort, just as "I" and "mine" appear on the scene only when a distinctive share in mutual action is consciously asserted or claimed. Human associations may be ever so organic in origin and firm in operation, but they develop into societies in a human sense only as their consequences, being known, are esteemed and sought for. Even if "society" were as much an organism as some writers have held, it would not on that account be society. Interactions, transactions, occur *de facto* and the results of interdependence follow. But participation in activities and sharing in results are additive concerns. They demand *communication* as a prerequisite.

Combined activity happens among human beings; but when nothing else happens it passes as inevitably into some other mode of interconnected activity as does the interplay of iron and the oxygen of water. What takes place is wholly describable in terms of energy, or, as we say in the case of human interactions, of force. Only when there exist *signs* or *symbols* of activities and of their outcome can the flux be viewed as from without, be arrested for consideration and esteem, and be regulated. Lightning strikes and rives a tree or rock, and the resulting fragments take up and continue the process of interaction, and so on and on. But when phases of the process are represented by signs, a new medium is interposed. As symbols are related to one another, the important relations of a course of events are recorded and are preserved as meanings. Recollection and foresight are possible; the new medium facilitates calculation, planning, and a new kind of action which intervenes in what happens to direct its course in the interest of what is foreseen and desired.

Symbols in turn depend upon and promote communication. The results of conjoint experience are considered and transmitted. Events cannot be passed from one to another, but meanings may be shared by means of signs.

Wants and impulses are then attached to common meanings. They are thereby transformed into desires and purposes, which, since they implicate a common or mutually understood meaning, present new ties, converting a conjoint activity into a community of interest and endeavor. Thus there is generated what, metaphorically, may be termed a general will and social consciousness: desire and choice on the part of individuals in behalf of activities that, by means of symbols, are communicable and shared by all concerned. A community thus presents an order of energies transmuted into one of meanings which are appreciated and mutually referred by each to every other on the part of those engaged in combined action. "Force" is not eliminated but is transformed in use and direction by ideas and sentiments made possible by means of symbols.

The work of conversion of the physical and organic phase of associated behavior into a community of action saturated and regulated by mutual interest in shared meanings, consequences which are translated into ideas and desired objects by means of symbols, does not occur all at once nor completely. At any given time, it sets a problem rather than marks a settled achievement. We are born organic beings associated with others, but we are not born members of a community. The young have to be brought within the traditions, outlook and interests which characterize a community by means of education: by unremitting instruction and by learning in connection with the phenomena of overt association. Everything which is distinctively human is learned, not native, even though it could not be learned without native structures which mark man off from other animals. To learn in a human way and to human effect is not just to acquire added skill through refinement of original capacities.

To learn to be human is to develop through the give-and-take of communication an effective sense of being an individually distinctive member of a community; one who understands and appreciates its beliefs, desires and methods, and who contributes to a further conversion of organic powers into human resources and values. But this translation is never finished. The old Adam, the unregenerate element in human nature, persists. It shows itself wherever the method obtains of attaining results by use of force instead of by the method of communication and enlightenment. It manifests itself more subtly, pervasively and effectually when knowledge and the instrumentalities of skill which are the product of communal life are employed in the service of wants and impulses which have not themselves been modified by reference to a shared interest. To the doctrine of "natural" economy which held that commercial exchange would bring about such an interdependence that harmony would automatically result, Rousseau gave an adequate answer in advance. He pointed out that interdependence provides just the situation which makes it possible and worth while for the stronger and abler to exploit others for their own ends, to keep others in a state of subjection where they can be utilized as animated tools. The remedy he suggested, a return to a condition of independence based on isolation, was hardly seriously meant. But its desperateness is evidence of the urgency of the problem. Its negative character was equivalent to surrender of any hope of solution. By contrast it indicates the nature of the only possible solution: the perfecting of the means and ways of communication of meanings so that genuinely shared interest in the consequences of interdependent activities may inform desire and effort and thereby direct action.

THE NECESSARY CONDITIONS FOR THE GREAT COMMUNITY [4]

What are the conditions under which it is possible for the Great Society to approach more closely and vitally the status of a Great Community, and thus take form in genuinely democratic societies and state? What are the conditions under which we may reasonably picture the Public emerging from its eclipse?

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[4] From *The Public and Its Problems,* pp. 157; 176-184; *Ethics,* pp. 303-304.

The study will be an intellectual or hypothetical one. There will be no attempt to state how the required conditions might come into existence, nor to prophesy that they will occur. The object of the analysis will be to show that *unless* ascertained specifications are realized, the Community cannot be organized as a democratically effective Public. It is not claimed that the conditions which will be noted will suffice, but only that at least they are indispensable.

Knowledge is communication as well as understanding. I well remember the saying of a man, uneducated from the standpoint of the schools, in speaking of certain matters: "Sometime they will be found out and not only found out, but they will be known." The schools may suppose that a thing is known when it is found out. My old friend was aware that a thing is fully known only when it is published, shared, socially accessible. Record and communication are indispensable to knowledge. Knowledge cooped up in a private consciousness is a myth, and knowledge of social phenomena is peculiarly dependent upon dissemination, for only by distribution can such knowledge be either obtained or tested. A fact of community life which is not spread abroad so as to be a common possession is a contradiction in terms. Dissemination is something other than scattering at large. Seeds are sown, not by virtue of being thrown out at random, but by being so distributed as to take root and have a chance of growth. Communication of the results of social inquiry is the same thing as the formation of public opinion. This marks one of the first ideas framed in the growth of political democracy as it will be one of the last to be fulfilled. For public opinion is judgment which is formed and entertained by those who constitute the public and is about public affairs. Each of the two phases imposes for its realization conditions hard to meet.

Opinions and beliefs concerning the public presuppose effective and organized inquiry. Unless there are methods for detecting the energies which are at work and tracing them through an intricate network of interactions to their consequences, what passes as public opinion will be "opinion" in its derogatory sense rather than truly public, no matter how widespread the opinion is. The number who share error as to fact and who partake of a false belief measures power for harm. Opinion casually formed and formed under the direction of those who have something at stake in having a lie believed can be *public* opinion only in name. Calling it by this name, acceptance of the name as a kind of warrant, magnifies its capacity to lead action astray. The more who share it, the more injurious its influence.

Public opinion, even if it happens to be correct, is intermittent when it is not the product of methods of investigation and reporting constantly at work. It appears only in crises. Hence its "rightness" concerns only an immediate emergency. Its lack of continuity makes it wrong from the standpoint of the course of events. It is as if a physician were able to deal for the moment with an emergency in disease but could not adapt his treatment of it to the underlying conditions which brought it about. He may then "cure" the disease—that is, cause its present alarming symptoms to subside—but he does not modify its causes; his treatment may even affect them for the worse. Only continuous inquiry, continuous in the sense of being connected as well as persistent, can provide the material of enduring opinion about public matters.

There is a sense in which "opinion" rather than knowledge, even under the most favorable circumstances, is the proper term to use—namely, in the sense of judgment, estimate. For in its strict sense, knowledge can refer only to what *has* happened and been done. What is still *to be* done involves a forecast of a future still contingent, and cannot escape the liability to error in judgment involved in all anticipation of probabilities. There may well be honest divergence as to policies to be pursued, even when plans spring from knowledge of the same facts. But genuinely public policy cannot be generated unless it be informed by knowledge, and this knowledge does not exist except when there is systematic, thorough, and well-equipped search and record.

Moreover, inquiry must be as nearly contemporaneous as possible; otherwise it is only of antiquarian interest. Knowledge of history is evidently necessary for connectedness of knowledge. But history which is not brought down close to the actual scene of events leaves a gap and exercises influence upon the formation of judgments about the public interest only by guess-work about intervening events. Here, only too conspicuously, is a limitation of the existing social sciences. Their material comes too late, too far after the event, to enter effectively into the formation of public opinion about the immediate public concern and what is to be done about it.

A glance at the situation shows that the physical and external means of collecting information in regard to what is happening in the world have far outrun the intellectual phase of inquiry and organization of its results. Telegraph, telephone, and now the radio, cheap and quick mails, the printing press, capable of swift reduplication of material at low cost, have attained a remarkable development. But when we ask what sort of material is recorded and how it is organized, when we ask about the intellectual form in which the material is presented, the tale to be told is very different. "News" signifies something which has just happened, and which is new just because it deviates from the old and regular. But its *meaning* depends upon relation to what it imports, to what its social consequences are.

This import cannot be determined unless the new is placed in relation to the old, to what has happened and been integrated into the course of events. Without coordination and consecutiveness, events are not events, but mere occurrences, intrusions; an event implies that out of which a happening proceeds. Hence even if we discount the influence of private interests in procuring suppression, secrecy and misrepresentation, we have here an explanation of the triviality and "sensational" quality of so much of what passes as news. The catastrophic, namely, crime, accident, family rows, personal clashes and conflicts, are the most obvious forms of breaches of continuity; they supply the element of shock which is the strictest meaning of sensation; they are the *new* par excellence, even though only the date of the newspaper could inform us whether they happened last year or this, so completely are they isolated from their connections.

So accustomed are we to this method of collecting, recording and presenting social changes, that it may well sound ridiculous to say that a genuine social science would manifest its reality in the daily press, while learned books and articles supply and polish tools of inquiry. But the inquiry which alone can furnish knowledge as a precondition of public judgments must be contemporary and quotidian. Even if social sciences as a specialized apparatus of inquiry were more advanced than they are, they would be comparatively impotent in the office of directing opinion on matters of concern to the public as long as they are remote from application in the daily and unremitting assembly and interpretation of "news." On the other hand, the tools of social inquiry will be clumsy as long as they are forged in places and under conditions remote from contemporary events.

What has been said about the formation of ideas and judgments concerning the public apply as well to the distribution of the knowledge which makes it an effective possession of the members of the public. Any separation between the two sides of the problem is artificial. The discussion of propaganda and propagandism would alone, however, demand a volume, and could be written only by one much more experienced than the present writer. Propaganda can accordingly only be mentioned, with the remark that the present situation is one unprecedented in history. The political forms of democracy and quasi-democratic habits of thought on social matters have compelled a certain amount of public discussion and at least the simulation of general consultation in arriving at political decisions. Representative government must at least seem to be founded on public interests as they are revealed to public belief. The days are past when government can be carried on without any pretense of ascertaining the wishes of the governed. In theory, their assent must be secured. Under the older forms, there was no need to muddy the sources of opinion on political matters. No current of energy flowed from them. To-day the judgments popularly formed on political matters are so important, in spite of all factors to the contrary, that there is an enormous premium upon all methods which affect their formation.

The smoothest road to control of political conduct is by control of opinion. As long as interests of pecuniary profit are powerful, and a public has not located and identified itself, those who have this interest will have an unresisted motive for tampering with the springs of political action in all that affects them. Just as in the conduct of industry and exchange generally the technological factor is obscured, deflected and defeated by "business," so specifically in the management of publicity. The gathering and sale of subject-matter having a public import is part of the existing pecuniary system. Just as industry conducted by engineers on a factual technological basis would be a very different thing from what it actually is, so the assembling and reporting of news would be a very different thing if the genuine interests of reporters were permitted to work freely.

One aspect of the matter concerns particularly the side of dissemination. It is often said, and with a great appearance of truth, that the freeing and perfecting of inquiry would not have any especial effect. For, it is argued, the mass of the reading public is not interested in learning and assimilating the results of accurate investigation. Unless these are read, they cannot seriously affect the thought and action of members of the public; they remain in secluded library alcoves, and are studied and understood only by a few intellectuals.

The objection is well taken save as the potency of art is taken into account. A technical high-brow presentation would appeal only to those technically high-brow; it would not be news to the masses. Presentation is fundamentally important, and presentation is a question of art. A newspaper which was only a daily edition of a quarterly journal of sociology or political science would undoubtedly possess a limited circulation and a narrow influence. Even at that, however, the mere existence and accessibility of such material would have some regulative effect. But we can look much further than that. The material would have such an enormous and widespread human bearing that its bare existence would be an irresistible invitation to a presentation of it which would have a direct popular appeal.

The freeing of the artist in literary presentation, in other words, is as much a precondition of the desirable creation of adequate opinion on public matters as is the freeing of social inquiry. Men's conscious life of opinion and judgment often proceeds on a superficial and trivial plane. But their lives reach a deeper level. The function of art has always been to break through the crust of conventionalized and routine consciousness. Common things, a flower, a gleam of moonlight, the song of a bird, not things rare and remote, are means with which the deeper levels of life are touched so that they spring up as desire and thought. This process is art. Poetry, the drama, the novel, are proofs that the problem of presentation is not insoluble. Artists have always been the real purveyors of news, for it is not the outward happening in itself which is new, but the kindling by it of emotion, perception and appreciation.

If the vice of the criminal, and of the coarsely selfish man is to disturb the aims and the good of others; if the vice of the ordinary egoist, and of every man, upon his egoistic side, is to neglect the interests of others; the vice of the social leader, of the reformer, of the philanthropist and the specialist in every worthy cause of science, or art, or politics, is to seek ends which promote the social welfare in ways which fail to engage the active interest and coöperation of others.[5] The conception of conferring the good upon others, or at least of attaining it for them, which is our inheritance from the aristocratic civilization of the past, is so deeply embodied in religious, political, and charitable institutions and in moral teachings, that it dies hard. Many a man, feeling himself justified by the social character of his ultimate aim (it may be economic, or educational, or political), is genuinely confused or exasperated by the increasing antagonism and resentment which he evokes, because he has not enlisted in his pursuit of the "common" end the freely coöperative activities of others. This coöperation must be the root principle of the morals of democracy. It must be confessed, however, that it has as yet made little progress.

Our traditional conceptions of the morally great man, the moral hero and leader, the exceptionally good social and political character, all work against the recognition of this principle either in practice or theory. They foster the notion that it is somebody's particular business to reach by his more or less isolated efforts (with "following," or obedience, or unreflective subordination on the part of others) a needed social good. Some genius is to lead the way; others are to adopt and imitate. Moreover, the method of awakening and enlisting the activities of all concerned in pursuit of the end seems slow; it seems to postpone accomplishment indefinitely. But in truth a common end which is not made such by common, free voluntary coöperation in process of achievement is common in name only. It has no support and guarantee in the activities which it is supposed to benefit, because it is not the fruit of those activities. Hence, it does not stay put. It has to be continually buttressed by appeal to external, not voluntary, considerations; bribes of pleasure, threats of harm, use of force. It has to be undone and done over.

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[5] The recognition of this type of spiritual selfishness is modern. It is the pivot upon which the later (especially) of Ibsen's tragedies turn.

There is no way to escape or evade this law of happiness, that it resides in the exercise of the active capacities of a voluntary agent; and hence no way to escape or evade the law of a common happiness, that it must reside in the congruous exercise of the voluntary activities of all concerned. The inherent irony and tragedy of much that passes for a high kind of socialized activity is precisely that it seeks a common good by methods which forbid its being either common or a good.

We have but touched lightly and in passing upon the conditions which must be fulfilled if the Great Society is to become a Great Community; a society in which the ever-expanding and intricately ramifying consequences of associated activities shall be known in the full sense of that word, so that an organized, articulate Public comes into being. The highest and most difficult kind of inquiry and a subtle, delicate, vivid and responsive art of communication must take possession of the physical machinery of transmission and circulation and breathe life into it. When the machine age has thus perfected its machinery it will be a means of life and not its despotic master. Democracy will come into its own, for democracy is a name for a life of free and enriching communion. It had its seer in Walt Whitman. It will have its consummation when free social inquiry is indissolubly wedded to the art of full and moving communication.

THE ULTIMATE FORM OF HUMAN ASSOCIATION[6]

In its deepest and richest sense a community must always remain a matter of face-to-face intercourse. This is why the family and neighborhood, with all their deficiencies, have always been the chief agencies of nurture, the means by which dispositions are stably formed and ideas acquired which laid hold on the roots of character. The Great Community, in the sense of free and full intercommunication, is conceivable. But it can never possess all the qualities which mark a local community. It will do its final work in ordering the relations and enriching the experience of local associations. The invasion and partial destruction of the life of the latter by outside uncontrolled agencies is the immediate source of the instability, disintegration and restlessness which characterize the present epoch. Evils which are uncritically and indiscriminately laid at the door of industrialism and democracy might, with greater intelligence, be referred to the dislocation and unsettlement of local communities. Vital and thorough attachments are bred only in the intimacy of an intercourse which is of necessity restricted in range.

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[6] From *The Public and Its Problems*, pp. 211-219.

Is it possible for local communities to be stable without being static, progressive without being merely mobile? Can the vast, innumerable and intricate currents of trans-local associations be so banked and conducted that they will pour the generous and abundant meanings of which they are potential bearers into the smaller intimate unions of human beings living in immediate contact with one another? Is it possible to restore the reality of the lesser communal organizations and to penetrate and saturate their members with a sense of local community life? There is at present, at least in theory, a movement away from the principle of territorial organization to that of "functional," that is to say, occupational, organization. It is true enough that older forms of territorial association do not satisfy present needs. It is true that ties formed by sharing in common work, whether in what is called industry or what are called professions, have now a force which formerly they did not possess. But these ties can be counted upon for an enduring and stable organization, which at the same time is flexible and moving, only as they grow out of immediate intercourse and attachment. The theory, as far as it relies upon associations which are remote and indirect, would if carried into effect soon be confronted by all the troubles and evils of the present situation in a transposed form. There is no substitute for the vitality and depth of close and direct intercourse and attachment.

It is said, and said truly, that for the world's peace it is necessary that we understand the peoples of foreign lands. How well do we understand, I wonder, our next door neighbors? It has also been said that if a man love not his fellow man whom he has seen, he cannot love the God whom he has not seen. The chances of regard for distant peoples being effective as long as there is no close neighborhood experience to bring with it insight and understanding of neighbors do not seem better. A man who has not been seen in the daily relations of life may inspire admiration, emulation, servile subjection, fanatical partisanship, hero worship; but not love and understanding, save as they radiate from the attachments of a near-by union. Democracy must begin at home, and its home is the neighborly community.

It is outside the scope of our discussion to look into the prospects of the reconstruction of face-to-face communities. But there is something deep within human nature itself which pulls toward settled relationships. Inertia and the tendency toward stability belong to emotions and desires as well as to masses and molecules. That happiness which is full of content and peace is found only in enduring ties with others, which reach to such depths that they go below the surface of conscious experience to form its undisturbed foundation. No one knows how much of the frothy excitement of life, of mania for motion, of fretful discontent, of need for artificial stimulation, is the expression of frantic search for something to fill the void caused by the loosening of the bonds which hold persons together in immediate community of experience. If there is anything in human psychology to be counted upon, it may be urged that when man is satiated with restless seeking for the remote which yields no enduring satisfaction, the human spirit will return to seek calm and order within itself. This, we repeat, can be found only in the vital, steady, and deep relationships which are present only in an immediate community.

The psychological tendency can, however, manifest itself only when it is in harmonious conjunction with the objective course of events. Analysis finds itself in troubled waters if it attempts to discover whether the tide of events is turning away from dispersion of energies and acceleration of motion. Physically and externally, conditions have made, of course, for concentration; the development of urban, at the expense of rural, populations; the corporate organization of aggregated wealth, the growth of all sorts of organizations, are evidence enough. But enormous organization is compatible with demolition of the ties that form local communities and with substitution of impersonal bonds for personal unions, with a flux which is hostile to stability. The character of our cities, of organized business and the nature of the comprehensive associations in which individuality is lost, testify also to this fact.

Yet there are contrary signs. "Community" and community activities are becoming words to conjure with. The local is the ultimate universal, and as near an absolute as exists. It is easy to point to many signs which indicate that unconscious agencies as well as deliberate planning are making for such an enrichment of the experience of local communities as will conduce to render them genuine centers of the attention, interest and devotion for their constituent members.

The unanswered question is how far these tendencies will reëstablish the void left by the disintegration of the family, church and neighborhood. We cannot predict the outcome. But we can assert with confidence that there is nothing intrinsic in the forces which have effected uniform standardization, mobility and remote invisible relationships that is fatally obstructive to the return movement of their consequences into the local homes of mankind. Uniformity and standardization may provide an underlying basis for differentiation and liberation of individual potentialities. They may sink to the plane of unconscious habituations, taken for granted in the mechanical phases of life, and deposit a soil from which personal susceptibilities and endowments may richly and stably flower. Mobility may in the end supply the means by which the spoils of remote and indirect interaction and interdependence flow back into local life, keeping it flexible, preventing the stagnancy which has attended stability in the past, and furnishing it with the elements of a variegated and many-hued experience. Organization may cease to be taken as an end in itself. Then it will no longer be mechanical and external, hampering the free play of artistic gifts, fettering men and women with chains of conformity, conducing to abdication of all which does not fit into the automatic movement of organization as a self-sufficing thing. Organization as a means to an end would reënforce individuality and enable it to be securely itself by enduing it with resources beyond its unaided reach.

Whatever the future may have in store, one thing is certain. Unless local communal life can be restored, the public cannot adequately resolve its most urgent problem: to find and identify itself. But if it be reëstablished, it will manifest a fullness, variety and freedom of possession and enjoyment of meanings and goods unknown in the contiguous associations of the past. For it will be alive and flexible as well as stable, responsive to the complex and world-wide scene in which it is enmeshed. While local, it will not be isolated. Its larger relationships will provide an inexhaustible and flowing fund of meanings upon which to draw, with assurance that its drafts will be honored.

Territorial states and political boundaries will persist; but they will not be barriers which impoverish experience by cutting man off from his fellows; they will not be hard and fast divisions whereby external separation is converted into inner jealousy, fear, suspicion and hostility. Competition will continue, but it will be less rivalry for acquisition of material goods, and more an emulation of local groups to enrich direct experience with appreciatively enjoyed intellectual and artistic wealth. If the technological age can provide mankind with a firm and general basis of material security, it will be absorbed in a humane age. It will take its place as an instrumentality of shared and communicated experience. But without passage through a machine age, mankind's hold upon what is needful as the precondition of a free, flexible and many-colored life is so precarious and inequitable that competitive scramble for acquisition and frenzied use of the results of acquisition for purposes of excitation and display will be perpetuated.

We have said that consideration of this particular condition of the generation of democratic communities and an articulate democratic public carries us beyond the question of intellectual method into that of practical procedure. But the two questions are not disconnected. The problem of securing diffused and seminal intelligence can be solved only in the degree in which local communal life becomes a reality. Signs and symbols, language, are the means of communication by which a fraternally shared experience is ushered in and sustained. But the wingèd words of conversation in immediate intercourse have a vital import lacking in the fixed and frozen words of written speech. Systematic and continuous inquiry into all the conditions which affect association and their dissemination in print is a precondition of the creation of a true public. But it and its results are but tools after all. Their final actuality is accomplished in face-to-face relationships by means of direct give and take. Logic in its fulfillment recurs to the primitive sense of the word: dialogue. Ideas which are not communicated, shared, and reborn in expression are but soliloquy, and soliloquy is but broken and imperfect thought. It, like the acquisition of material wealth, marks a diversion of the wealth created by associated endeavor and exchange to private ends. It is more genteel, and it is called more noble. But there is no difference in kind.

In a word, that expansion and reënforcement of personal understanding and judgment by the cumulative and transmitted intellectual wealth of the community which may render nugatory the indictment of democracy drawn on the basis of the ignorance, bias and levity of the masses, can be fulfilled only in the relations of personal intercourse in the local community. The connections of the ear with vital and out-going thought and emotion are immensely closer and more varied than those of the eye. Vision is a spectator; hearing is a participator. Publication is partial and the public which results is partially informed and formed until the meanings it purveys pass from mouth to mouth. There is no limit to the liberal expansion and confirmation of limited personal intellectual endowment which may proceed from the flow of social intelligence when that circulates by word of mouth from one to another in the communications of the local community. That and that only gives reality to public opinion. We lie, as Emerson said, in the lap of an immense intelligence. But that intelligence is dormant and its communications are broken, inarticulate and faint until it possesses the local community as its medium.

CHAPTER SEVENTEEN

ART AND RELIGION IN HUMAN LIFE

THE PRIMACY OF ART IN HUMAN LIFE[1]

HUMAN experience in the large, in its coarse and conspicuous features, has for one of its most striking features preoccupation with direct enjoyment, feasting and festivities; ornamentation, dance, song, dramatic pantomime, telling yarns and enacting stories. In comparison with intellectual and moral endeavor, this trait of experience has hardly received the attention from philosophers that it demands. Even philosophers who have conceived that pleasure is the sole motive of man and the attainment of happiness his whole aim, have given a curiously sober, drab account of the working of pleasure and the search for happiness. Consider the utilitarians how they toiled, spun and wove, but who never saw man arrayed in joy as the lilies of the field. Happiness was to them a matter of calculation and effort, of industry guided by mathematical book-keeping. The history of man shows however that man takes his enjoyment neat, and at as short range as possible.

Direct appropriations and satisfactions were prior to anything but the most elementary and exigent prudence, just as the useful arts preceded the sciences. The body is decked before it is clothed. While homes are still hovels, temples and palaces are embellished. Luxuries prevail over necessities except when necessities can be festally celebrated. Men make a game of their fishing and hunting, and turn to the periodic and disciplinary labor of agriculture only when inferiors, women and slaves, cannot be had to do the work. Useful labor is, whenever possible, transformed by ceremonial and ritual accompaniments, subordinated to art that yields immediate enjoyment; otherwise it is attended to under the compulsion of circumstance during abbreviated surrenders of leisure. For leisure permits of festivity, in revery, ceremonies and conversation. The pressure of necessity is, however, never wholly lost, and the sense of it led men, as if with uneasy conscience at their respite from work, to impute practical efficacy to play and rites, endowing them with power to coerce events and to purchase the favors of rulers of events.

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[1] From *Experience and Nature*, pp. 78-80.

But it is possible to magnify the place of magical exercise and superstitious legend. The primary interest lies in staging the show and enjoying the spectacle, in giving play to the ineradicable interest in stories which illustrate the contingencies of existence combined with happier endings for emergencies than surrounding conditions often permit. It was not conscience that kept men loyal to cults and rites, and faithful to tribal myths. So far as it was not routine, it was enjoyment of the drama of life without the latter's liabilities that kept piety from decay. Interest in rites as means of influencing the course of things, and the cognitive or explanatory office of myths were hardly more than an embroidery, repeating in pleasant form the pattern which inexpugnable necessities imposed upon practice. When rite and myth are spontaneous rehearsal of the impact and career of practical needs and doings, they must also seem to have practical force. The political significance of July Fourth, 1776, is perhaps renewed by the juvenile celebrations of Independence Day, but this effect hardly accounts for the fervor of the celebration. Any excuse serves for a holiday and the more the holiday is decked out with things that contrast with the pressure of workaday life while reenacting its form, the more a holiday it is. The more unrestrained the play of fancy the greater the contrast. The supernatural has more thrills than the natural, the customary; holidays and holy-days are indistinguishable.

Death is an occasion for a wake, and mourning is acclaimed with a board of funeral meats.

THE NATURE OF ART [2]

Art is solvent union of the generic, recurrent, ordered, established phase of nature with its phase that is incomplete, going on, and hence still uncertain, contingent, novel, particular; or as certain systems of esthetic theory have truly declared, though without empirical basis and import in their words, a union of necessity and freedom, a harmony of the many and one, a reconciliation of sensuous and ideal. Of any artistic act and product it may be said both that it is inevitable in its rightness, that nothing in it can be altered without altering all, and that its occurrence is spontaneous, unexpected, fresh, unpredictable. The presence in art, whether as an act or a product, of proportion, economy, order, symmetry, composition, is such a commonplace that it does not need to be dwelt upon. But equally necessary is unexpected combination, and the consequent revelation of possibilities hitherto unrealized. "Repose in stimulation" characterizes art. Order and proportion when they are the whole story are soon exhausted; economy in itself is a tiresome and restrictive taskmaster. It is artistic when it releases.

The more extensive and repeated are the basic uniformities of nature that give form to art, the "greater" is the art, provided—and it is this proviso that distinguishes art—they are indistinguishably fused with the wonder of the new and the grace of the gratuitous. "Creation" may be asserted vaguely and mystically; but it denotes something genuine and indispensable in art. The merely finished is not fine but ended, done with, and the merely "fresh" is that bumptious impertinence indicated by the slang use of the word. The "magic" of poetry—and pregnant experience has poetical quality—is precisely the revelation of meaning in the old effected by its presentation through the new. It radiates the light that never was on land and sea but that is henceforth an abiding illumination of objects. Music in its immediate occurrence is the most varied and etherial of the arts, but is in its conditions and structure the most mechanical. These things are commonplaces; but until they are commonly employed in their evidential significance for a theory of nature's nature, there is no cause to apologize for their citation.

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[2] From *Experience and Nature*, pp. 359-361; 365-368.

The limiting terms that define art are routine at one extreme and capricious impulse at the other. It is hardly worth while to oppose science and art sharply to one another, when the deficiencies and troubles of life are so evidently due to separation between art and blind routine and blind impulse. Routine exemplifies the uniformities and recurrences of nature, caprice expresses its inchoate initiations and deviations. Each in isolation is unnatural as well as inartistic, for nature is an intersection of spontaneity and necessity, the regular and the novel, the finished and the beginning. It is right to object to much of current practice on the ground that it is routine, just as it is right to object to much of our current enjoyments on the ground that they are spasms of excited escape from the thraldom of enforced work. But to transform a just objection against the quality of much of our practical life into a description and definition of practice is on the same plane as to convert legitimate objection to trivial distraction, senseless amusement, and sensual absorption, into a Puritanical aversion to happiness. The idea that work, productive activity, signifies action carried on for merely extraneous ends, and the idea that happiness signifies surrender of mind to the thrills and excitations of the body are one and the same idea. The first notion marks the separation of activity from meaning, and the second marks the separation of receptivity from meaning. Both separations are inevitable as far as experience fails to be art:—when the regular, repetitious, and the novel, contingent in nature fail to sustain and inform each other in a productive activity possessed of immanent and directly enjoyed meaning.

Thus the theme has insensibly passed over into that of the relation of means and consequence, process and product, the instrumental and consummatory. Any activity that is simultaneously both, rather than in alternation and displacement, is art. Disunion of production and consumption is a common enough occurrence. But emphasis upon this separation in order to exalt the consummatory does not define or interpret either art or experience. It obscures their meaning, resulting in a division of art into useful and fine, adjectives which, when they are prefixed to "art," corrupt and destroy its intrinsic significance. For arts that are merely useful are not arts but routines; and arts that are merely final are not arts but passive amusements and distractions, different from other indulgent dissipations only in dependence upon a certain acquired refinement or "cultivation."

Limitation of fineness of art to paintings, statues, poems, songs and symphonies is conventional, or even verbal. Any activity that is productive of objects whose perception is an immediate good, and whose operation is a continual source of enjoyable perception of other events exhibits fineness of art. There are acts of all kinds that directly refresh and enlarge the spirit and that are instrumental to the production of new objects and dispositions which are in turn productive of further refinements and replenishments. Frequently moralists make the acts *they* find excellent or virtuous wholly final, and treat art and affection as mere means. Estheticians reverse the performance, and see in good *acts* means to an ulterior external happiness, while esthetic appreciation is called a good in itself, or that strange thing an end in itself. But on both sides it is true that in being preeminently fructifying the things designated means are immediate satisfactions. They are their own excuses for being just because they are charged with an office in quickening apprehension, enlarging the horizon of vision, refining discrimination, creating standards of appreciation which are confirmed and deepened by further experiences. It would almost seem when their non-instrumental character is insisted upon as if what was meant were an indefinitely expansive and radiating intrumental efficacy.

The source of the error lies in the habit of calling by the name of means things that are not means at all; things that are only external and accidental antecedents of the happening of something else. Similarly things are called ends that are not ends save accidentally, since they are not fulfillments, consummatory, of means, but merely last terms closing a process. Thus it is often said that a laborer's toil is the means of his livelihood, although except in the most tenuous and arbitrary way it bears no relationship to his real living. Even his wage is hardly an end or consequence of his labor. He might—and frequently does—equally well or ill—perform any one of a hundred other tasks as a condition of receiving payment. The prevailing conception of instrumentality is profoundly vitiated by the habit of applying it to cases like the above, where, instead of an operation of means, there is an enforced necessity of doing one thing as a coerced antecedent of the occurrence of another thing which is wanted.

Means are always at least causal conditions; but causal conditions are means only when they possess an added qualification; that, namely, of being freely used, because of perceived connection with chosen consequences. To entertain, choose and accomplish anything as an end or consequence is to be committed to a like love and care for whatever events and acts are its means. Similarly, consequences, ends, are at least effects; but effects are not ends unless thought has perceived and freely chosen the conditions and processes that are their conditions. The notion that means are menial, instrumentalities servile, is more than a degradation of means to the rank of coercive and external necessities. It renders all things upon which the name of end is bestowed accompaniments of privilege, while the name of utility becomes an apologetic justification for things that are not portions of a good and reasonable life. Livelihood is at present not so much the consequence of a wage-earner's labor as it is the effect of other causes forming the economic régime, labor being merely an accidental appendage of these other causes.

Paints and skill in manipulative arrangement are means of a picture as end, because the picture is *their* assemblage and organization. Tones and susceptibility of the ear when properly interacting are the means of music, because they constitute, make, are, music. A disposition of virtue is a means to a certain quality of happiness because it is a constituent of that good, while such happiness is means in turn to virtue, as the sustaining of good in being. Flour, water, yeast are means of bread because they are ingredients of bread; while bread is a factor *in* life, not just *to* it. A good political constitution, honest police-system, and competent judiciary, are means of the prosperous life of the community because they are integrated portions of that life. Science is an instrumentality of and for art because it is the intelligent factor *in* art. The trite saying that a hand is not a hand except as an organ of the living body—except as a working coördinated part of a balanced system of activities—applies untritely to all things that are means. The connection of means-consequences is never one of bare succession in time, such that the element that is means is past and gone when the end is instituted. An active process is strung out temporarily, but there is a deposit at each stage and point entering cumulatively and constitutively into the outcome. A genuine instrumentality *for* is always an organ *of* an end. It confers continued efficacy upon the object in which it is embodied.

THE ARTISTIC AND THE ESTHETIC[3]

Greek thinkers disparaged experience in comparison with something called reason and science. The ground for depreciation was not that usually assigned in modern philosophy; it was not that experience is "subjective." On the contrary, experience was considered to be a genuine expression of cosmic forces, not an exclusive attribute or possession of animal or of human nature. It was taken to be a realization of inferior portions of nature, those infected with chance and change, the less *Being* part of the cosmos. Thus while experience meant art, art reflected the contingencies and partialities of nature, while science—theory—exhibited its necessities and universalities. Art was born of need, lack, deprivation, incompleteness, while science—theory—manifested fullness and totality of Being. Thus the depreciatory view of experience was identical with a conception that placed practical activity below theoretical activity, finding the former dependent, impelled from outside, marked by deficiency of real being, while the latter was independent and free because complete and self-sufficing: that is perfect.

In contrast with this self-consistent position we find a curious mixture in modern thinking. The latter feels under no obligation to present a theory of natural existence that links art with nature; on the contrary, it usually holds that science or knowledge is the only *authentic* expression of nature, in which case art must be an arbitrary addition to nature. But modern thought also combines exaltation of science with eulogistic appreciation of art, especially of fine or creative art. At the same time it retains the substance of the classic disparagement of the practical in contrast with the theoretical, although formulating it in somewhat different language: to the effect that knowledge deals with objective reality as it is in itself, while in what is "practical," objective reality is altered

[3] From *Experience and Nature*, pp. 354-356; 357-359.

and cognitively distorted by subjective factors of want, emotion and striving. And yet in its encomium of art, it fails to note the commonplace of Greek observation—that the fine arts as well as the industrial technologies are affairs of practice.

This confused plight is partly cause and partly effect of an almost universal confusion of the artistic and the esthetic. On one hand, there is action that deals with materials and energies outside the body, assembling, refining, combining, manipulating them until their new state yields a satisfaction not afforded by their crude condition—a formula that applies to fine and useful art alike. On the other hand, there is the delight that attends vision and hearing, an enhancement of the receptive appreciation and assimiliation of objects irrespective of participation in the operations of production. Provided the difference of the two things is recognized, it is no matter whether the words "esthetic" and "artistic" or other terms be used to designate the distinction, for the difference is not one of words but of objects. But in some form the difference must be acknowledged.

If Greek philosophy was correct in thinking of knowledge as contemplation rather than as a productive art, and if modern philosophy accepts this conclusion, then the only logical course is relative disparagement of all forms of production, since they are modes of practice which is by conception inferior to contemplation. The artistic is then secondary to the esthetic: "creation," to "taste," and the scientific *worker*—as we significantly say—is subordinate in rank and worth to the dilettante who enjoys the results of his labors. But if modern tendencies are justified in putting art and creation first, then the implications of this position should be avowed and carried through. It would then be seen that science is an art, that art is practice, and that the only distinction worth drawing is not between practice and theory, but between those modes of practice that are not intelligent, not inherently and immediately enjoyable, and those which are full of enjoyed meanings. When this perception dawns, it will be a commonplace that art—the mode of activity that is charged with meanings capable of immediately enjoyed possession—is the complete culmination of nature, and that "science" is properly a handmaiden that conducts natural events to this happy issue. Thus would disappear the separations that trouble present thinking: division of everything into nature *and* experience, of experience into practice *and* theory, art *and* science, of art into useful *and* fine, menial *and* free.

Thus the issue involved in experience as art in its pregnant sense and in art as processes and materials of nature continued by direction into achieved and enjoyed meanings, sums up in itself all the issues which have been previously considered. Thought, intelligence, science is the intentional direction of natural events to meanings capable of immediate possession and enjoyment; this direction —which is operative art—is itself a natural event in which nature otherwise partial and incomplete comes fully to itself; so that objects of conscious experience when reflectively chosen, form the "end" of nature. The doings and sufferings that form experience are, in the degree in which experience is intelligent or charged with meanings, a union of the precarious, novel, irregular with the settled, assured and uniform—a union which also defines the artistic and the esthetic. For wherever there is art the contingent and ongoing no longer work at cross purposes with the formal and recurrent but commingle in harmony. And the distinguishing feature of conscious experience, of what for short is often called "consciousness," is that in it the instrumental and the final, meanings that are signs and clews and meanings that are immediately possessed, suffered and enjoyed, come together in one. And all of these things are preëminently true of art.

FINE AND USEFUL ART[4]

To institute a difference of *kind* between useful and fine arts is absurd, since art involves a peculiar interpenetration of means and ends. Many things are termed useful for reasons of social status, implying deprecation and contempt. Things are sometimes said to belong to the menial arts merely because they are cheap and used familiarly by common people. These things of daily use for ordinary ends may survive in later periods, or be transported to another culture, as from Japan and China to America, and being rare and sought by connoisseurs, rank forthwith as works of fine art. Other things may be called fine because their manner of use is decorative or socially ostentatious.

It is tempting to make a distinction of degree and say that a thing belongs to the sphere of use when perception of its meaning is incidental to something else; and that a thing belongs to fine art when its other uses are subordinate to its use in perception. The distinction has a rough practical value, but cannot be pressed too far. For in production of a painting or a poem, as well as in making a vase or a temple, a perception is also employed as means for something beyond itself. Moreover, the perception of urns, pots and pans as commodities may be intrinsically enjoyable, although these things are primarily perceived with reference to some use to which they are put.

The only *basic* distinction is that between bad art and good art, and this distinction, between things that meet the requirements of art and those that do not, applies equally to things of use and of beauty. Capacity to offer to perception meaning in which fruition and efficacy interpenetrate is met by different products in various degrees of fulness; it may be missed altogether by pans and poems alike. The difference between the ugliness of a mechanically conceived and executed utensil and of a meretricious and pretentious painting is one only of content or material; in form, both are articles, and bad articles.

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[4] From *Experience and Nature*, pp. 377-378.

THE MORAL VALUE OF ART [5]

There is an optimistic theory of nature according to which wherever there is natural law there is also natural harmony. Since man as well as the world is included in the scope of natural law, it is inferred that there is natural harmony between human activities and surroundings, a harmony which is disturbed only when man indulges in "artificial" departures from nature. According to this view, all man has to do is to keep his occupations in balance with the energies of the environment and he will be both happy and efficient. Rest, recuperation, relief can be found in a proper alternation of forms of useful work. Do the things which surroundings indicate need doing, and success, content, restoration of powers will take care of themselves.

This benevolent view of nature falls in with a Puritanic devotion to work for its own sake and creates distrust of amusement, play and recreation. They are felt to be unnecessary and, worse, dangerous diversions from the path of useful action which is also the path of duty. Social conditions certainly impart to occupations as they are now carried on an undue element of fatigue, strain and drudgery. Consequently useful occupations which are so ordered socially as to engage thought, feed imagination and equalize the impact of stress would surely introduce a tranquillity and recreation which are now lacking. But there is good reason to think that even in the best conditions there is enough maladjustment between the necessities of the environment and the activities "natural" to man, so that constraint and fatigue would always accompany activity, and special forms of action be needed—forms that are significantly called re-creation.

Hence the immense moral importance of play and of fine, or make-believe, art—of activity, that is, which is make-believe from the standpoint of the useful arts enforced by the demands of the environment. When moralists have not regarded play and art with a censorious eye, they often have thought themselves carrying matters to the pitch of generosity by conceding that they may be morally indifferent or innocent. But in truth they are moral necessities. They are required to take care of the margin that exists between the total stock of impulses that demand outlet and the amount expended in regular action. They keep the balance which work cannot indefinitely maintain. They are required to introduce variety, flexibility and sensitiveness into disposition. Yet upon the whole the humanizing capabilities of sport in its varied forms, drama, fiction, music, poetry, newspapers have been neglected. They have been left in a kind of a moral no-man's territory. They have accomplished part of their function but they have not done what they are capable of doing. In many cases they have operated merely as reactions like those artificial and isolated stimulations already mentioned.

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[5] From *Human Nature and Conduct*, pp. 159-164.

The suggestion that play and art have an indispensable moral function which should receive an attention now denied, calls out an immediate and vehement protest. We omit reference to that which proceeds from professional moralists to whom art, fun and sport are habitually under suspicion. For those interested in art, professional estheticians, will protest even more strenuously. They at once imagine that some kind of organized supervision if not censorship of play, drama and fiction is contemplated which will convert them into means of moral edification. If they do not think of Comstockian interference in the alleged interest of public morals, they at least think that what is intended is the elimination by persons of a Puritanic, unartistic temperament of everything not found sufficiently earnest and elevating, a fostering of art not for its own sake but as a means of doing good by something to somebody. There is a natural fear of injecting into art a spirit of earnest uplift, of surrendering art to the reformers.

But something quite other than this is meant. Relief from continuous moral activity—in the conventional sense of moral—is itself a moral necessity. The service of art and play is to engage and release impulses in ways quite different from those in which they are occupied and employed in ordinary activities. Their function is to forestall and remedy the usual exaggerations and deficits of activity, even of "moral" activity and to prevent a stereotyping of attention. To say that society is altogether too careless about the moral worth of art is not to say that carelessness about useful occupations is not a necessity for art. On the contrary, whatever deprives play and art of their own careless rapture thereby deprives them of their moral function. Art then becomes poorer as art as a matter of course, but it also becomes in the same measure less effectual in its pertinent moral office. It tries to do what other things can do better, and it fails to do what nothing but itself can do for human nature, softening rigidities, relaxing strains, allaying bitterness, dispelling moroseness, and breaking down the narrowness consequent upon specialized tasks.

Even if the matter be put in this negative way, the moral value of art cannot be depreciated. But there is a more positive function. Play and art add fresh and deeper meanings to the usual activities of life. In contrast with a Philistine relegation of the arts to a trivial by-play from serious concerns, it is truer to say that most of the significance now found in serious occupations originated in activities not immediately useful, and gradually found its way from them into objectively serviceable employments. For their spontaneity and liberation from external necessities permits to them an enhancement and vitality of meaning not possible in preoccupation with immediate needs. Later this meaning is transferred to useful activities and becomes a part of their ordinary working. In saying then that art and play have a moral office not adequately taken advantage of, it is asserted that they are responsible to life, to the enriching and freeing of its meanings, not that they are responsible to a moral code, commandment or special task.

To a coarse view—and professed moral refinement is often given to taking coarse views—there is something vulgar not only in recourse to abnormal artificial excitants and stimulations but also in interest in useless games and arts. Negatively the two things have features which are alike. They both spring from failure of regular occupations to engage the full scope of impulses and instincts in an elastically balanced way. They both evince a surplusage of imagination over fact; a demand in imaginative activity for an outlet which is denied in overt activity. They both aim at reducing the domination of the prosaic; both are protests against the lowering of meanings attendant upon ordinary vocations. As a consequence no rule can be laid down for discriminating by direct inspection between unwholesome stimulations and invaluable excursions into appreciative enhancements of life. Their difference lies in the way they work, the careers to which they commit us.

Art releases energy and focuses and tranquilizes it. It releases energy in constructive forms. Castles in the air like art have their source in a turning of impulse away from useful production. Both are due to the failure in some part of man's constitution to secure fulfilment in ordinary ways. But in one case the conversion of direct energy into imagination is the starting point of an activity which *shapes* material; fancy is fed upon a stuff of life which assumes under its influence a rejuvenated, composed and enhanced form. In the other case, fancy remains an end in itself. It becomes an indulging in fantasies which bring about withdrawal from all realities, while wishes impotent in action build a world which yields temporary excitement.

Any imagination is a sign that impulse is impeded and is groping for utterance. Sometimes the outcome is a refreshed useful habit; sometimes it is an articulation in creative art; and sometimes it is a futile romancing which for some natures does what self-pity does for others. The amount of potential energy of reconstruction that is dissipated in unexpressed fantasy supplies us with a fair measure of the extent to which the current organization of occupation balks and twists impulse, and, by the same sign, with a measure of the function of art which is not yet utilized.

RELIGION, DEMOCRACY, AND EDUCATION[6]

A learned and self-conscious generation has fittingly discovered religion to be a universal tendency of human nature. Through its learning, anthropology, psychology, and comparative religion have been summoned to give this testimony. But because of its self-consciousness the generation is uneasy. As it surveys itself it is fearful lest, solitary among the ages, it should not be religious. The self-same learning which has made it aware that other times have had their life permeated with religious faith is part of the conditions which have rendered the religions of those periods impossible. The dilemma is striking and perplexing. Shall the very circumstances which convince us that religion is necessary also make it impossible? Shall the evidence that it is a universal tendency make those who are aware of this tendency the flagrant exception to its universality? We have learned so much about religious "instincts": shall we therefore lose them?

It indeed seems hard that a generation which has accumulated not only material wealth, but intellectual riches, to the extent that it is compelled to pull down its barns—its systems of philosophy and doctrine—and build greater, should be lacking in just that grace and sanction of life which ignorant and poor people have possessed as matter of course. But our learnedly self-conscious generation is also mechanical. It has a tool for everything and almost everything has become for it a tool. Why, then, should we longer suffer from deficiency of religion? We have discovered our lack: let us set the machinery in motion which will supply it. We have mastered the elements of physical well-being; we can make light and heat to order, and can command the means of transportation. Let us now put a similar energy, good-will, and thoughtfulness into the control of the things of the spiritual life. Having got so far as to search for proper machinery, the next step is easy. Education is the modern universal purveyor, and upon the schools shall rest the responsibility for seeing to it that we recover our threatened religious heritage.

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[6] From "Religion and Our Schools" in *The Hibbert Journal*, Vol. VI, pp. 796-809.

I cannot expect that those who are now especially concerned with the maintenance and the spread of conscious and explicit religious instruction (for the time being one must use this question-begging epithet) will recognize their attitude or intention in what I have just said. And it has no application to those who are already committed to special dogmas of religion which are the monopoly of special ecclesiastic institutions. With respect to them, the fight for special agencies and peculiar materials and methods of education in religion is a natural part of their business: just as, however, it is the business of those who do not believe that religion is a monopoly or a protected industry to contend, in the interest both of education and of religion, for keeping the schools free from what they must regard as a false bias.

Those who believe that human nature without special divine assistance is lost, who believe that they have in their charge the special channels through which the needed assistance is conveyed, must, naturally, be strenuous in keeping open these channels to the minds of men. But when the arguments for special religious education at special times and places by special means proceed from philosophic sources—from those whose primary premise is denial of any breach between man and the world and God, then a sense of unreality comes over me. The arguments perforce translate themselves ironically. They seem to say that, since religion is a universal function of life, we must particularly safeguard it lest it disappear; that since religion is the consciousness of the spiritual import of experience, we must find mechanical appliances for developing it.

Those who approach religion and education from the side of unconstrained reflection, not from the side of tradition, are of necessity aware of the tremendous transformation of intellectual attitude effected by the systematic denial of the supernatural; they are aware of the changes it imports not merely in special dogma and rites, but in the interpretation of the world, and in the projection of social and, hence, moral life. It testifies to the current unreality of philosophy (itself probably a product of that forced idealism in which modern thought has taken refuge) that philosophers should seem to think that great intellectual generalisations may be, as it were, plastered over life to label its contents, and not imply profound practical alterations within life itself. In no other way is it easy to account for the attitude of those who are convinced of the final departure of the supernatural interpretation of the world and of man, and who yet think that agencies like the church and the school must not be thoroughly reconstructed before they can be fit organs for nurturing types of religious feeling and thought which are consistent with modern democracy and modern science.

That science has the same spiritual import as supernaturalism; that democracy translates into the same religious attitude as did feudalism; that it is only a matter of slight changes of phraseology, a development of old symbolisms into new shades of meaning—such beliefs testify to that torpor of imagination which is the uniform effect of dogmatic belief. The reconstruction of the church is a matter which concerns, indeed, the whole community so far as its outcome is concerned, while the responsibility for its initiation belongs primarily to those within the churches. The burden of conducting the development, the reconstruction, of other educational agencies belongs, however, primarily to the community as a whole. With respect to its intellectual aspect, its philosophy, it belongs especially to those who, having become conscious in some degree of the modern ideas of nature, of man and society, are best able to forecast the direction which social changes are taking. It is lucidity, sincerity, and the sense of reality which demand that, until the non-supernatural view is more completely elaborated in all its implications and is more completely in possession of the machinery of education, the schools shall keep hands off and shall do as little as possible. This is indeed a laissez-faire policy. It is frankly, avowedly so. And, doubtless, laissez-faire policies are not in favor in self-conscious and mechanical days.

One of the further ironies of our time is that, having discovered the part played by unconscious, organic, collective forces in the processes of human development, we are possessed by a great eagerness, a great uneasiness, consciously to foster and to guide these forces. We need, however, to accept the responsibilities of living in an age marked by the greatest intellectual readjustment history records. There is undoubted loss of joy, of consolation, of some types of strength, and of some sources of inspiration in the change. There is a manifest increase of uncertainty; there is some paralysis of energy, and much excessive application of energy in materialistic direction. Yet nothing is gained by deliberate effort to return to ideas which have become incredible, and to symbols which have been emptied of their content of obvious meaning. Nothing can be gained by moves which will increase confusion and obscurity, which tend to an emotional hypocrisy and to a phrasemongering of formulæ which seem to mean one thing and really import the opposite.

Bearing the losses and inconveniences of our time as best we may, it is the part of men to labor persistently and patiently for the clarification and development of the positive creed of life implicit in democracy and in science, and to work for the transformation of all practical instrumentalities of education till they are in harmony with these ideas. Till these ends are further along than we can honestly claim them to be at present, it is better that our schools should do nothing than that they should do wrong things. It is better for them to confine themselves to their obviously urgent tasks than that they should, under the name of spiritual culture, form habits of mind which are at war with the habits of mind congruous with democracy and with science. It is not laziness nor cynicism which calls for laissez-faire policy; it is honesty, courage, sobriety, and faith.

We certainly cannot teach religion as an abstract essence. We have got to teach *something* as religion, and that means practically *some* religion. Which? In America, at least, the answer cannot be summarily given even as Christianity in general. Our Jewish fellow-citizens not only have the same "hands, organs, dimensions, senses, affections, passions" as the Christians, but, like them, they pay taxes, vote, and serve on school boards. But we should not be very much better off even if it were a question of Christianity alone. Which Christianity? Oriental in its origin, it has been since Latinized and Germanized, and there are even those who have dreamed of humanizing it.

As yet, the standpoint of science, its spirit, has not of course leavened very adequately our methods of teaching. Our science is still an outward garb more or less awkwardly worn rather than a habit of mind. But none the less the scientific norm of mental activity presses daily more close upon life and upon the schools. We are getting daily further away from the conditions in which one subject more or less taught by dogmatic, catechetical and memoriter methods was of slight consequence. We are becoming aware of the absurdity implied in calling things which happen to be studied and learned in school "knowledge," when they have been acquired by methods frequently at odds with those necessary to give science. Can those who take the philosophic and historic view of religion as a flower and fruition of the human spirit in a congenial atmosphere tolerate the incongruity involved in "teaching" such an intimate and originally vital matter by external and formal methods? And can those who hold that true religion is something externally imported tolerate any other methods? Is it not confusion to seek a reconciliation of two such disparate ideas?

Already the spirit of our schooling is permeated with the feeling that every subject, every topic, every fact, every professed truth must submit to a certain publicity and impartiality. All proffered samples of learning must go to the same assay-room and be subjected to common tests. It is the essence of all dogmatic faiths to hold that any such "showdown" is sacrilegious and perverse. The characteristic of religion, from their point of view, is that it is—intellectually—secret, not public; peculiarly revealed, not generally known; authoritatively declared, not communicated and tested in ordinary ways.

What is to be done about this increasing antinomy between the standard for coming to know in other subjects of the school, and coming to know in religious matters? I am far from saying that the antinomy is an inherent one, or that the day may not come when religion will be so thoroughly naturalized in the hearts and minds of men that it can be considered publicly, openly, and by common tests, even among religious people. But it is pertinent to point out that, as long as religion is conceived as it now is conceived by the great majority of professed religionists, there is something self-contradictory in speaking of education in religion in the same sense in which we speak of education in topics where the method of free inquiry has made its way. The "religious" would be the last to be willing that either the history or the content of religion should be taught in this spirit; while those to whom the scientific standpoint is not a merely technical device, but is the embodiment of integrity of mind, must protest against its being taught in any other spirit.

We may indeed question whether it is true that in any relative sense this is a peculiarly irreligious age. Absolutely speaking, it doubtless is so; but have superficiality, flippancy, and externality of life been such uniformly absent traits of past ages? Our historic imagination is at best slightly developed. We generalize and idealize the past egregiously. We set up little toys to stand as symbols for long centuries and the complicated lives of countless individuals. And we are still, even those who have nominally surrendered supernatural dogma, largely under the dominion of the ideas of those who have succeeded in identifying religion with the rites, symbols, and emotions associated with these dogmatic beliefs. As we see the latter disappearing, we think we are growing irreligious. For all we know, the integrity of mind which is loosening the hold of these things is potentially much more religious than all that it is displacing.

It is increased knowledge of nature which has made supra-nature incredible, or at least difficult of belief. We measure the change from the standpoint of the supra-natural and we call it irreligious. Possibly if we measured it from the standpoint of the natural piety it is fostering, the sense of the permanent and inevitable implication of nature and man in a common career and destiny, it would appear as the growth of religion. We take note of the decay of cohesion and influence among the religiously organized bodies of the familiar historic type, and again we conventionally judge religion to be on the decrease. But it may be that their decadence is the fruit of a broader and more catholic principle of human intercourse and association which is too religious to tolerate these pretensions to monopolize truth and to make private possessions of spiritual insight and aspiration.

It may be so; it may be that the symptoms of religious ebb as conventionally interpreted are symptoms of the coming of a fuller and deeper religion. I do not claim to know. But of one thing I am quite sure: our ordinary opinions about the rise and falling of religion are highly conventional, based mostly upon the acceptance of a standard of religion which is the product of just those things in historic religions which are ceasing to be credible. So far as education is concerned, those who believe in religion as a natural expression of human experience must devote themselves to the development of the ideas of life which lie implicit in our still new science and our still newer democracy. They must interest themselves in the transformation of those institutions which still bear the dogmatic and the feudal stamp (and which do not?) till they are in accord with these ideas. In performing this service, it is their business to do what they can to prevent all public educational agencies from being employed in ways which inevitably impede the recognition of the spiritual import of science and of democracy, and hence of that type of religion which will be the fine flower of the modern spirit's achievement.

RELIGION AND HUMAN LIFE[7]

From the standpoint of its *definite* aim any act is petty in comparison with the totality of natural events. What is accomplished directly as the outcome of a turn which our action gives the course of events is infinitesimal in comparison with their total sweep. Only an illusion of conceit persuades us that cosmic difference hangs upon even our wisest and most strenuous effort. Yet discontent with this limitation is as unreasonable as relying upon an illusion of external importance to keep ourselves going. In a genuine sense every act is already possessed of infinite import. The little part of the scheme of affairs which is modifiable by our efforts is continuous with the rest of the world. The boundaries of our garden plot join it to the world of our neighbors and our neighbors' neighbors. That small effort which we can put forth is in turn connected with an infinity of events that sustain and support it. The consciousness of this encompassing infinity of connections is ideal. When a sense of the infinite reach of an act physically occurring in a small point of space and occupying a petty instant of time comes home to us, the *meaning* of a present act is seen to be vast, immeasurable, unthinkable. This ideal is not a goal to be attained. It is a significance to be felt, appreciated. Though consciousness of it cannot become intellectualized (identified in objects of a distinct character) yet emotional appreciation of it is won only by those willing to think.

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[7] From *Human Nature and Conduct*, pp. 262-264; *Reconstruction in Philosophy*, pp. 210-212.

It is the office of art and religion to evoke such appreciations and intimations; to enhance and steady them till they are wrought into the texture of our lives. Some philosophers define religious consciousness as beginning where moral and intellectual consciousness leave off. In the sense that definite purposes and methods shade off of necessity into a vast whole which is incapable of objective presentation this view is correct. But they have falsified the conception by treating the religious consciousness as something that comes *after* an experience in which striving, resolution and foresight are found. To them morality and science are a striving; when striving ceases a moral holiday begins, an excursion beyond the utmost flight of legitimate thought and endeavor. But there is a point in *every* intelligent activity where effort ceases; where thought and doing fall back upon a course of events which effort and reflection cannot touch. There is a point *in* deliberate action where definite thought fades into the ineffable and undefinable—into emotion.

If the sense of this effortless and unfathomable whole comes only in alternation with the sense of strain in action and labor in thought, then we spend our lives in oscillating between what is cramped and enforced and a brief transitory escape. The function of religion is then caricatured rather than realized. Morals, like war, is thought of as hell, and religion, like peace, as a respite. The religious experience is a reality in so far as in the midst of effort to foresee and regulate future objects we are sustained and expanded in feebleness and failure by the sense of an enveloping whole. Peace in action not after it is the contribution of the ideal to conduct.

Philosophy has ever since had the problem of adjusting the dry, thin and meagre scientific standpoint with the obstinately persisting body of warm and abounding imaginative beliefs. Conceptions of possibility, progress, free movement and infinitely diversified opportunity have been suggested by modern science. But until they have displaced from *imagination* the heritage of the immutable and the once-for-all ordered and systematized, the ideas of mechanism and matter will lie like a dead weight upon the emotions, paralyzing religion and distorting art.

When the liberation of capacity no longer seems a menace to organization and established institutions, something that cannot be avoided practically and yet something that is a threat to conservation of the most precious values of the past, when the liberating of human capacity operates as a socially creative force, art will not be a luxury, a stranger to the daily occupations of making a living. Making a living economically speaking, will be at one with making a life that is worth living. And when the emotional force, the mystic force one might say, of communication, of the miracle of shared life and shared experience is spontaneously felt, the hardness and crudeness of contemporary life will be bathed in the light that never was on land or sea.

As the new ideas find adequate expression in social life, they will be absorbed into a moral background, and the ideas and beliefs themselves will be deepened and be unconsciously transmitted and sustained. They will color the imagination and temper the desires and affections. They will not form a set of ideas to be expounded, reasoned out and argumentatively supported, but will be a spontaneous way of envisaging life. Then they will take on religious value. The religious spirit will be revivified because it will be in harmony with men's unquestioned scientific beliefs and their ordinary day-by-day social activities. It will not be obliged to lead a timid, half-concealed and half-apologetic life because tied to scientific ideas and social creeds that are continuously eaten into and broken down. But especially will the ideas and beliefs themselves be deepened and intensified because spontaneously fed by emotion and translated into imaginative vision and fine art, while they are now maintained by more or less conscious effort, by deliberate reflection, by taking thought. They are technical and abstract just because they are not as yet carried as matter of course by imagination and feelings.

Poetry, art, religion are precious things. They cannot be maintained by lingering in the past and futilely wishing to restore what the movement of events in science, industry and politics has destroyed. They are an outflowering of thought and desires that unconsciously converge into a disposition of imagination as a result of thousands and thousands of daily episodes and contact. They cannot be willed into existence or coerced into being. The wind of the spirit bloweth where it listeth and the kingdom of God in such things does not come with observation. But while it is impossible to retain and recover by deliberate volition old sources of religion and art that have been discredited, it is possible to expedite the development of the vital sources of a religion and art that are yet to be. Not indeed by action directly aimed at their production, but by substituting faith in the active tendencies of the day for dread and dislike of them, and by the courage of intelligence to follow whither social and scientific changes direct us. We are weak to-day in ideal matters because intelligence is divorced from aspiration. The bare force of circumstance compels us onwards in the daily detail of our beliefs and acts, but our deeper thoughts and desires turn backwards. When philosophy shall have cooperated with the course of events and made clear and coherent the meaning of the daily detail, science and emotion will interpenetrate, practice and imagination will embrace. Poetry and religious feeling will be the unforced flowers of life.

CHAPTER EIGHTEEN

PHILOSOPHY AND CIVILIZATION

THE ORIGIN OF PHILOSOPHY[1]

MAN differs from the lower animals because he preserves his past experiences. What happened in the past is lived again in memory. About what goes on to-day hangs a cloud of thoughts concerning similar things undergone in bygone days. With the animals, an experience perishes as it happens, and each new doing or suffering stands alone. But man lives in a world where each occurrence is charged with echoes and reminiscences of what has gone before, where each event is a reminder of other things. Hence he lives not, like the beasts of the field, in a world of merely physical things but in a world of signs and symbols. A stone is not merely hard, a thing into which one bumps; but it is a monument of a deceased ancestor. A flame is not merely something which warms or burns, but is a symbol of the enduring life of the household, of the abiding source of cheer, nourishment and shelter to which man returns from his casual wanderings. Instead of being a quick fork of fire which may sting and hurt, it is the hearth at which one worships and for which one fights. And all this which marks the difference between bestiality and humanity, between culture and merely physical nature, is because man remembers, preserving and recording his experiences.

The revivals of memory are, however, rarely literal. We naturally remember what interests us and because it interests us. The past is recalled not because of itself but because of what it adds to the present. Thus the primary life of memory is emotional rather than intellectual and practical. Savage man recalled yesterday's struggle with an animal not in order to study in a scientific way the qualities of the animal or for the sake of calculating how better to fight to-morrow, but to escape from the tedium of to-day by regaining the thrill of yesterday. The memory has all the excitement of the combat without its danger and anxiety. To revive it and revel in it is to enhance the present moment with a new meaning, a meaning different from that which actually belongs either to it or to the past. Memory is vicarious experience in which there is all the emotional values of actual experience without its strains, vicissitudes and troubles. The triumph of battle is even more poignant in the memorial war dance than at the moment of victory; the conscious and truly human experience of the chase comes when it is talked over and re-enacted by the camp fire. At the time, attention is taken up with practical details and with the strain of uncertainty. Only later do the details compose into a story and fuse into a whole of meaning. At the time of practical experience man exists from moment to moment, preoccupied with the task of the moment. As he resurveys all the moments in thought, a drama emerges with a beginning, a middle and a movement toward the climax of achievement or defeat.

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[1] From *Reconstruction in Philosophy*, pp. 1-11; 12-14; 16-17; 20-22.

Since man revives his past experience because of the interest added to what would otherwise be the emptiness of present leisure, the primitive life of memory is one of fancy and imagination, rather than of accurate recollection. After all, it is the story, the drama, which counts. Only those incidents are selected which have a present emotional value, to intensify the present tale as it is rehearsed in imagination or told to an admiring listener. What does not add to the thrill of combat or contribute to the goal of success or failure is dropped. Incidents are rearranged till they fit into the temper of the tale. Thus early man when left to himself, when not actually engaged in the struggle for existence, lived in a world of memories which was a world of suggestions. A suggestion differs from a recollection in that no attempt is made to test its correctness. Its correctness is a matter of relative indifference. The cloud suggests a camel or a man's face. It could not suggest these things unless some time there had been an actual, literal experience of camel and face. But the real likeness is of no account. The main thing is the emotional interest in tracing the camel or following the fortunes of the face as it forms and dissolves.

Students of the primitive history of mankind tell of the enormous part played by animal tales, myths and cults. Sometimes a mystery is made out of this historical fact, as if it indicated that primitive man was moved by a different psychology from that which now animates humanity. But the explanation is, I think, simple. Until agriculture and the higher industrial arts were developed, long periods of empty leisure alternated with comparatively short periods of energy put forth to secure food or safety from attack. Because of our own habits, we tend to think of people as busy or occupied, if not with doing at least with thinking and planning. But then men were busy only when engaged in the hunt or fishing or fighting expedition. Yet the mind when awake must have some filling; it cannot remain literally vacant because the body is idle. And what thoughts should crowd into the human mind except experiences with animals, experiences transformed under the influence of dramatic interest to make more vivid and coherent the events typical of the chase? As men in fancy dramatically re-lived the interesting parts of their actual lives, animals inevitably became themselves dramatized.

They were true *dramatis personæ* and as such assumed the traits of persons. They too had desires, hopes and fears, a life of affections, loves and hates, triumphs and defeats. Moreover, since they were essential to the support of the community, their activities and sufferings made them, in the imagination which dramatically revived the past, true sharers in the life of the community. Although they were hunted, yet they permitted themselves after all to be caught, and hence they were friends and allies. They devoted themselves, quite literally, to the sustenance and well-being of the community group to which they belonged. Thus were produced not merely the multitude of tales and legends dwelling affectionately upon the activities and features of animals, but also those elaborate rites and cults which made animals ancestors, heroes, tribal figure-heads and divinities.

I hope that I do not seem to you to have gone too far afield from my topic, the origin of philosophies. For it seems to me that the historic source of philosophies cannot be understood except as we dwell, at even greater length and in more detail, upon such considerations as these. We need to recognize that the ordinary consciousness of the ordinary man left to himself is a creature of desires rather than of intellectual study, inquiry or speculation. Man ceases to be primarily actuated by hopes and fears, loves and hates, only when he is subjected to a discipline which is foreign to human nature, which is, from the standpoint of natural man, artificial. Naturally our books, our scientific and philosophical books, are written by men who have subjected themselves in a superior degree to intellectual discipline and culture. Their thoughts are habitually reasonable. They have learned to check their fancies by facts, and to organize their ideas logically rather than emotionally and dramatically. When they do indulge in reverie and day-dreaming—which is probably more of the time than is conventionally acknowledged—they are aware of what they are doing. They label these excursions, and do not confuse their results with objective experiences.

We tend to judge others by ourselves, and because scientific and philosophic books are composed by men in whom the reasonable, logical and objective habit of mind predominates, a similar rationality has been attributed by them to the average and ordinary man. It is then overlooked that both rationality and irrationality are largely irrelevant and episodical in undisciplined human nature; that men are governed by memory rather than by thought, and that memory is not a remembering of actual facts, but is association, suggestion, dramatic fancy. The standard used to measure the value of the suggestions that spring up in the mind is not congruity with fact but emotional congeniality. Do they stimulate and reinforce feeling, and fit into the dramatic tale? Are they consonant with the prevailing mood, and can they be rendered into the traditional hopes and fears of the community? If we are willing to take the word dreams with a certain liberality, it is hardly too much to say that man, save in his occasional times of actual work and struggle, lives in a world of dreams, rather than of facts, and a world of dreams that is organized about desires whose success and frustration form its stuff.

To treat the early beliefs and traditions of mankind as if they were attempts at scientific explanation of the world, only erroneous and absurd attempts, is thus to be guilty of a great mistake. The material out of which philosophy finally emerges is irrelevant to science and to explanation. It is figurative, symbolic of fears and hopes, made of imaginations and suggestions, not significant of a world of objective fact intellectually confronted. It is poetry and drama, rather than science, and is apart from scientific truth and falsity, rationality or absurdity of fact in the same way in which poetry is independent of these things.

This original material has, however, to pass through at least two stages before it becomes philosophy proper. One is the stage in which stories and legends and their accompanying dramatizations are consolidated. At first the emotionalized records of experiences are largely casual and transitory. Events that excite the emotions of an individual are seized upon and lived over in tale and pantomime. But some experiences are so frequent and recurrent that they concern the group as a whole. They are socially generalized. The piecemeal adventure of the single individual is built out till it becomes representative and typical of the emotional life of the tribe. Certain incidents affect the weal and woe of the group in its entirety and thereby get an exceptional emphasis and elevation. A certain texture of tradition is built up; the story becomes a social heritage and possession; the pantomime develops into the stated rite. Tradition thus formed becomes a kind of norm to which individual fancy and suggestion conform. An abiding framework of imagination is constructed. A communal way of conceiving life grows up into which individuals are inducted by education. Both unconsciously and by definite social requirement individual memories are assimilated to group memory or tradition, and individual fancies are accommodated to the body of beliefs characteristic of a community. Poetry becomes fixated and systematized. The story becomes a social norm. The original drama which re-enacts an emotionally important experience is institutionalized into a cult. Suggestions previously free are hardened into doctrines.

The systematic and obligatory nature of such doctrines is hastened and confirmed through conquests and political consolidation. As the area of a government is extended, there is a definite motive for systematizing and unifying beliefs once free and floating. Aside from natural accommodation and assimilation springing from the fact of intercourse and the needs of common understanding, there is often political necessity which leads the ruler to centralize traditions and beliefs in order to extend and strengthen his prestige and authority. Judea, Greece, Rome, and, I presume, all other countries having a long history, present records of a continual working over of earlier local rites and doctrines in the interests of a wider social unity and a more extensive political power. I shall ask you to assume with me that in this way the larger cosmogonies and cosmologies of the race as well as the larger ethical traditions have arisen. Whether this is literally so or not, it is not necessary to inquire, much less to demonstrate. It is enough for our purposes that under social influences there took place a fixing and organizing of doctrines and cults which gave general traits to the imagination and general rules to conduct, and that such a consolidation was a necessary antecedent to the formation of any philosophy as we understand that term.

Although a necessary antecedent, this organization and generalization of ideas and principles of belief is not the sole and sufficient generator of philosophy. There is still lacking the motive for logical system and intellectual proof. This we may suppose to be furnished by the need of reconciling the moral rules and ideals embodied in the traditional code with the matter of fact positivistic knowledge which gradually grows up. For man can never be wholly the creature of suggestion and fancy. The requirements of continued existence make indispensable some attention to the actual facts of the world. Although it is surprising how little check the environment actually puts upon the formation of ideas, since no notions are too absurd not to have been accepted by some people, yet the environment does enforce a certain minimum of correctness under penalty of extinction.

That certain things are foods, that they are to be found in certain places, that water drowns, fire burns, that sharp points penetrate and cut, that heavy things fall unless supported, that there is a certain regularity in the changes of day and night and the alternation of hot and cold, wet and dry:—such prosaic facts force themselves upon even primitive attention. Some of them are so obvious and so important that they have next to no fanciful context. Auguste Comte says somewhere that he knows of no savage people who had a God of weight although every other natural quality or force may have been deified. Gradually there grows up a body of homely generalizations preserving and transmitting the wisdom of the race about the observed facts and sequences of nature. This knowledge is especially connected with industries, arts and crafts where observation of materials and processes is required for successful action, and where action is so continuous and regular that spasmodic magic will not suffice. Extravagantly fantastic notions are eliminated because they are brought into juxtaposition with what actually happens.

For a long time the imaginative body of beliefs closely connected with the moral habits of a community group and with its emotional indulgences and consolations persists side by side with the growing body of matter of fact knowledge. Wherever possible they are interlaced. At other points, their inconsistencies forbid their interweaving, but the two things are kept apart as if in different compartments. Since one is merely superimposed upon the other their incompatibility is not felt, and there is no need of reconciliation. In most cases, the two kinds of mental products are kept apart because they become the possession of separate social classes. The religious and poetic beliefs having acquired a definite social and political value and function are in the keeping of a higher class directly associated with the ruling elements in the society. The workers and craftsmen who possess the prosaic matter of fact knowledge are likely to occupy a low social status, and their kind of knowledge is affected by the social disesteem entertained for the manual worker who engages in activities useful to the body. It doubtless was this fact in Greece which in spite of the keenness of observation, the extraordinary power of logical reasoning and the great freedom of speculation attained by the Athenian, postponed the general and systematic employment of the experimental method. Since the industrial craftsman was only just above the slave in social rank, his type of knowledge and the method upon which it depended lacked prestige and authority.

Nevertheless, the time came when matter of fact knowledge increased to such bulk and scope that it came into conflict with not merely the detail but with the spirit and temper of traditional and imaginative beliefs. Without going into the vexed question of how and why, there is no doubt that this is just what happened in what we term the sophistic movement in Greece, within which originated philosophy proper in the sense in which the western world understands that term. The fact that the sophists had a bad name given them by Plato and Aristotle, a name they have never been able to shake off, is evidence that with the sophists the strife between the two types of belief was the emphatic thing, and that the conflict had a disconcerting effect upon the traditional system of religious beliefs and the moral code of conduct bound up with it. Although Socrates was doubtless sincerely interested in the reconciliation of the two sides, yet the fact that he approached the matter from the side of matter of fact method, giving its canons and criteria primacy, was enough to bring him to the condemnation of death as a contemner of the gods and a corrupter of youth.

Such a point of view vividly realized enables us to appreciate the antagonism aroused by the positivistic point of view when it came into conflict with the traditional. The latter was deeply rooted in social habits and loyalties; it was surcharged with the moral aims for which men lived and the moral rules by which they lived. Hence it was as basic and as comprehensive as life itself, and palpitated with the warm glowing colors of the community life in which men realized their own being. In contrast, the positivistic knowledge was concerned with merely physical utilities, and lacked the ardent associations of belief hallowed by sacrifices of ancestors and worship of contemporaries. Because of its limited and concrete character it was dry, hard, cold.

Yet the more acute and active minds, like that of Plato himself, could no longer be content to accept, along with the conservative citizen of the time, the old beliefs in the old way. The growth of positive knowledge and of the critical, inquiring spirit undermined these in their old form. The advantages in definiteness, in accuracy, in verifiability were all on the side of the new knowledge. Tradition was noble in aim and scope, but uncertain in foundation. The unquestioned life, said Socrates, was not one fit to be lived by man, who is a questioning being because he is a rational being. Hence he must search out the reason of things, and not accept them from custom and political authority. What was to be done? Develop a method of rational investigation and proof which should place the essential elements of traditional belief upon an unshakable basis; develop a method of thought and knowledge which while purifying tradition should preserve its moral and social values unimpaired; nay, by purifying them, add to their power and authority. To put it in a word, that which had rested upon custom was to be restored, resting no longer upon the habits of the past, but upon the very metaphysics of Being and the Universe. Metaphysics is a substitute for custom as the source and guarantor of higher moral and social values—that is the leading theme of the classic philosophy of Europe, as evolved by Plato and Aristotle—a philosophy, let us always recall, renewed and restated by the Christian philosophy of Medieval philosophy which till very recently has controlled the systematic and constructive philosophies of the western world.

If I am right in my main thesis that the origin of philosophy lay in an attempt to reconcile the two different types of mental product, then the key is in our hands as to the main traits of subsequent philosophy so far as that was not of a negative and heterodox kind. In the first place, philosophy did not develop in an unbiased way from an open and unprejudiced origin. It had its task cut out for it from the start. It had a mission to perform, and it was sworn in advance to that mission. It had to extract the essential moral kernel out of the threatened traditional beliefs of the past. So far so good; the work was critical and in the interests of the only true conservatism—that which will conserve and not waste the values wrought out by humanity. But it was also precommitted to extracting this moral essence in a spirit congenial to the spirit of past beliefs. The association with imagination and with social authority was too intimate to be deeply disturbed. It was not possible to conceive of the content of social institutions in any form radically different from that in which they had existed in the past. It became the work of philosophy to justify on rational grounds the spirit, though not the form, of accepted beliefs and traditional customs.

This brings us to a second trait of philosophy springing from its origin. Since it aimed at a rational justification of things that had been previously accepted because of their emotional congeniality and social prestige, it had to make much of the apparatus of reason and proof. Because of the lack of intrinsic rationality in the matters with which it dealt, it leaned over backward, so to speak, in parade of logical form. In dealing with matters of fact, simpler and rougher ways of demonstration may be resorted to. It is enough, so to say, to produce the fact in question and point to it—the fundamental form of all demonstration. But when it comes to convincing men of the truth of doctrines which are no longer to be accepted upon the say-so of custom and social authority, but which also are not capable of empirical verification, there is no recourse save to magnify the signs of rigorous thought and rigid demonstration. Thus arises that appearance of abstract definition and ultra-scientific argumentation which repels so many from philosophy but which has been one of its chief attractions to its devotees.

At the worst, this has reduced philosophy to a show of elaborate terminology, a hair-splitting logic, and a fictitious devotion to the mere external forms of comprehensive and minute demonstration. Even at the best, it has tended to produce an overdeveloped attachment to system for its own sake, and an over-pretentious claim to certainty. Bishop Butler declared that probability is the guide of life; but few philosophers have been courageous enough to avow that philosophy can be satisfied with anything that is merely probable. The customs dictated by tradition and desire had claimed finality and immutability. They had claimed to give certain and unvarying laws of conduct. Very early in its history philosophy made pretension to a similar conclusiveness, and something of this temper has clung to classic philosophies ever since. They have insisted that they were more scientific than the sciences—that, indeed, philosophy was necessary because after all the special sciences fail in attaining final and complete truth. There have been a few dissenters who have ventured to assert, as did William James, that "philosophy is vision" and that its chief function is to free men's minds from bias and prejudice and to enlarge their perceptions of the world about them. But in the main philosophy has set up much more ambitious pretensions. To say frankly that philosophy can proffer nothing but hypotheses, and that these hypotheses are of value only as they render men's minds more sensitive to life about them, would seem like a negation of philosophy itself.

In the third place, the body of beliefs dictated by desire and imagination and developed under the influence of communal authority into an authoritative tradition, was pervasive and comprehensive. It was, so to speak, omnipresent in all the details of the group life. Its pressure was unremitting and its influence universal. It was then probably inevitable that the rival principle, reflective thought, should aim at a similar universality and comprehensiveness. It would be as inclusive and far-reaching metaphysically as tradition had been socially.

PHILOSOPHY AS CRITICISM [2]

Philosophy is inherently criticism, having its distinctive position among various modes of criticism in its generality; a criticism of criticisms, as it were. Criticism is discriminating judgment, careful appraisal, and judgment is appropriately termed criticism wherever the subject-matter of discrimination concerns goods or values.

[2] From *Experience and Nature*, pp. 398-400; 403-404; 407-408; 436-437; *Essays in Experimental Logic*, pp. 98-102.

Possession and enjoyment of goods passes insensibly and inevitably into appraisal. First and immature experience is content simply to enjoy. But a brief course in experience enforces reflection; it requires but brief time to teach that some things sweet in the having are bitter in after-taste and in what they lead to. Primitive innocence does not last. Enjoyment ceases to be a datum and becomes a problem. As a problem, it implies intelligent inquiry into the conditions and consequences of a value-object; that is, criticism. If values were as plentiful as huckleberries, and if the huckleberry-patch were always at hand, the passage of appreciation into criticism would be a senseless procedure. If one thing tired or bored us, we should have only to turn to another. But values are as unstable as the forms of clouds. The things that possess them are exposed to all the contingencies of existence, and they are indifferent to our likings and tastes.

When criticism and the critical attitude are legitimately distinguished from appreciation and taste, we are in the presence of one case of the constant rhythm of "perchings and flights" (to borrow James' terms), characteristic of alternate emphasis upon the immediate and mediate, the consummatory and instrumental, phases of all conscious experience. If we are misled into ignoring the omnipresence in all observations and ideas of this rhythm, it is largely because, under the influence of formal theories, we attach too elaborate and too remote a signification to "appreciation" and "criticism." Values of some sort or other are not traits of rare and festal occasions; they occur whenever any object is welcomed and lingered over; whenever it arouses aversion and protest; even though the lingering be but momentary and the aversion a passing glance toward something else.

Similarly, criticism is not a matter of formal treatises, published articles, or taking up important matters for consideration in a serious way. It occurs whenever a moment is devoted to looking to see what sort of value is present; whenever instead of accepting a value-object wholeheartedly, being rapt by it, we raise even a shadow of a question about its worth, or modify our sense of it by even a passing estimate of its probable future. It is well upon the whole that we use the terms "appreciation" and "criticism" honorifically, to designate conspicuous instances. But it is fatal to any understanding of them to fail to note that formally emphatic instances are of exactly the same nature as the rhythmic alternation between slight agreeable acceptances, annoyed rejections and passing questionings and estimates, which make up the entire course of our waking experience, whether in revery, in controlled inquiry or in deliberate management of affairs.

The difference between genuine, valid good and a counterfeit, specious good is unreal, or it is a difference consequent upon reflection, or criticism, and the significant point is that this difference is equivalent to that made by discovery of relationships, of conditions and consequences. With this conclusion are bound up two other propositions: Of immediate values as such, values which occur and which are possessed and enjoyed, there is no theory at all; they just occur, are enjoyed, possessed; and that is all. The moment we begin to discourse about these values, to define and generalize, to make distinctions in kinds, we are passing beyond value-objects themselves; we are entering, even if only blindly, upon an inquiry into causal antecedents and causative consequents, with a view to appraising the "real," that is the eventual, goodness of the thing in question. We are criticizing, not for its own sake, but for the sake of instituting and perpetuating more enduring and extensive values.

The other proposition is that philosophy is and can be nothing but this critical operation and function become aware of itself and its implications, pursued deliberately and systematically. It starts from actual situations of belief, conduct and appreciative perception which are characterized by immediate qualities of good and bad, and from the modes of critical judgment current at any given time in all the regions of value; these are its data, its subject-matter. These values, criticisms, and critical methods, it subjects to further criticism as comprehensive and consistent as possible. The function is to regulate the further appreciation of goods and bads; to give greater freedom and security in those acts of direct selection, appropriation, identification and of rejection, elimination, destruction which enstate and which exclude objects of belief, conduct and contemplation.

Philosophic discourse partakes both of scientific and literary discourse. Like literature, it is a comment on nature and life in the interest of a more intense and just appreciation of the meanings present in experience. Its business is reportorial and transcriptive only in the sense in which the drama and poetry have that office. Its primary concern is to clarify, liberate and extend the goods which inhere in the naturally generated functions of experience. It has no call to create a world of "reality" *de novo*, nor to delve into secrets of Being hidden from common-sense and science. It has no stock of information or body of knowledge peculiarly its own; if it does not always become ridiculous when it sets up as a rival of science, it is only because a particular philosopher happens to be also, as a human being, a prophetic man of science. Its business is to accept and to utilize for a purpose the best available knowledge of its own time and place. And this purpose is criticism of beliefs, institutions, customs, policies with respect to their bearing upon good. This does not mean their bearing upon *the* good, as something itself attained and formulated in philosophy. For as philosophy has no private source of knowledge or of methods for attaining truth, so it has no private access to good. As it accepts knowledge of facts and principles from those competent in inquiry and discovery, so it accepts the goods that are diffused in human experience. It has no Mosaic nor Pauline authority of revelation entrusted to it. But it has the authority of intelligence, of criticism of these common and natural goods.

At this point, it departs from the arts of literary discourse. They have a freer office to perform—to perpetuate, enhance and vivify in imagination the natural goods; all things are forgiven to him who succeeds. But philosophic criticism has a stricter task, with a greater measure of responsibility to what lies outside its own products. It has to appraise values by taking cognizance of their causes and consequences; only by this straight and narrow path may it contribute to expansion and emancipation of values. For this reason the conclusions of science about matter-of-fact efficiencies of nature are its indispensable instruments. If its eventual concern is to render goods more coherent, more secure and more significant in appreciation, its road is the subject-matter of natural existence as science discovers and depicts it.

Philosophy, defined as a logic, makes no pretense to be an account of a closed and finished universe. Its business is not to secure or guarantee any particular reality or value. *Per contra*, it gets the significance of a method. The right relationship and adjustment of the various typical phases of experience to one another is a problem felt in every department of life. Intellectual rectification and control of these adjustments cannot fail to reflect itself in an added clearness and security on the practical side. It may be that general logic cannot become an instrument in the immediate direction of the activities of science or art or industry; but is of value in criticizing and organizing tools of immediate research. It also has direct significance in the valuation for social or life-purposes of results achieved in particular branches. Much of the immediate business of life is badly done because we do not know the genesis and outcome of the work that occupies us. The manner and degree of appropriation of the goods achieved in various departments of social interest and vocation are partial and faulty because we are not clear as to the due rights and responsibilities of one function of experience in reference to others.

The value of research for social progress; the bearing of psychology upon educational procedure; the mutual relations of fine and industrial art; the question of the extent and nature of specialization in science in comparison with the claims of applied science; the adjustment of religious aspirations to scientific statements; the justification of a refined culture for a few in face of economic insufficiency for the mass, the relation of organization to individuality—such are a few of the many social questions whose answer depends upon the possession and use of a general logic of experience as a method of inquiry and interpretation. I do not say that headway cannot be made in such questions apart from the method indicated: a logic of experience. But unless we have a critical and assured view of the juncture in which and with reference to which a given attitude or interest arises, unless we know the service it is thereby called upon to perform, and hence the organs or methods by which it best functions in that service, our progress is impeded and irregular.

We take a part for a whole, a means for an end; or we attack wholesale some interest because it interferes with the deified sway of the one we have selected as ultimate. A clear and comprehensive consensus of social conviction and a consequent concentrated and economical direction of effort are assured only as there is some way of locating the position and rôle of each typical interest and occupation. The domain of opinion is one of conflict; its rule is arbitrary and costly. Only intellectual method affords a substitute for opinion. A general logic of experience alone can do for social qualities and aims what the natural sciences after centuries of struggle are doing for activity in the physical realm.

This does not mean that systems of philosophy which have attempted to state the nature of thought and of reality at large, apart from limits of particular situations in the movement of experience, have been worthless—though it does mean that their industry has been somewhat misapplied. The unfolding of metaphysical theory has made large contributions to positive evaluations of the typical situations and relationships of experience—even when its conscious intention has been quite otherwise. Every system of philosophy is itself a mode of reflection; consequently (if our main contention be true), it too has been evoked out of specific social antecedents, and has had its use as a response to them. It has effected something in modifying the situation within which it found its origin. It may not have solved the problem which it consciously put itself; in many cases we may freely admit that the question put has been found afterward to be so wrongly put as to be insoluble. Yet exactly the same thing is true, in precisely the same sense, in the history of science. For this reason, if for no other, it is impossible for the scientific man to cast the first stone at the philosopher.

The progress of science in any branch continually brings with it a realization that problems in their previous form of statement are insoluble because put in terms of unreal conditions; because the real conditions have been mixed up with mental artifacts or misconstructions. Every science is continually learning that its supposed solutions are only apparent because the "solution" solves, not the actual problem, but one which has been made up. But the very putting of the question, the very giving of the wrong answer, induces modification of existing intellectual habits, standpoints, and aims. Wrestling with the problem, there is evolution of new technique to control inquiry, there is search for new facts, institution of new types of experimentation; there is gain in the methodic control of experience.

And all this is progress. It is only the worn-out cynic, the devitalized sensualist, and the fanatical dogmatist who interpret the continuous change of science as proving that, since each successive statement is wrong, the whole record is error and folly; and that the present truth is only the error not yet found out. Such draw the moral of caring naught for all these things, or of flying to some external authority which will deliver once for all the fixed and unchangeable truth. But historic philosophy even in its aberrant forms has proved a factor in the valuation of experience; it has brought problems to light, it has provoked intellectual conflicts without which values are only nominal; even through its would-be absolutistic isolations it has secured recognition of mutual dependencies and reciprocal reinforcements. Yet if it can define its work more clearly, it can concentrate its energy upon its own characteristic problem: the genesis and functioning in experience of various typical interests and occupations with reference to one another.

Because intelligence is critical method applied to goods of belief, appreciation and conduct, so as to construct freer and more secure goods, turning assent and assertion into free communication of shareable meanings, turning feeling into ordered and liberal sense, turning reaction into response, it is the reasonable object of our deepest faith and loyalty, the stay and support of all reasonable hopes. To utter such a statement is not to indulge in romantic idealization. It is not to assert that intelligence will ever dominate the course of events; it is not even to imply that it will save from ruin and destruction. The issue is one of choice, and choice is always a question of alternatives.

What the method of intelligence, thoughtful valuation will accomplish, if once it be tried, is for the result of trial to determine. Since it is relative to the intersection in existence of hazard and rule, of contingency and order, faith in a wholesale and final triumph is fantastic. But some procedure has to be tried; for life is itself a sequence of trials. Carelessness and routine, Olympian aloofness, secluded contemplation are themselves choices. To claim that intelligence is a better method than its alternatives, authority, imitation, caprice and ignorance, prejudice and passion, is hardly an excessive claim. These procedures have been tried and have worked their will. The result is not such as to make it clear that the method of intelligence, the use of science in criticizing and recreating the casual goods of nature into intentional and conclusive goods of art, the union of knowledge and values in production, is not worth trying. There may be those to whom it is treason to think of philosophy as the critical method of developing methods of criticism. But this conception of philosophy also waits to be tried, and the trial which shall approve or condemn lies in the eventual issue. The import of such knowledge as we have acquired and such experience as has been quickened by thought is to evoke and justify the trial.

PHILOSOPHY AND CIVILIZATION[3]

It is now something over a century since Kant called upon philosophers to cease their discussion regarding the nature of the world and the principles of existence until they had arrived at some conclusion regarding the nature of the knowing process. But students of philosophy know that Kant formulated the question "how knowledge is possible" rather than created it. As matter of fact, reflective thought for two centuries before Kant had been principally interested in just this problem, although it had not generalized its own interest. Kant brought to consciousness the controlling motive.

What is the meaning of the problem of knowledge? What is its meaning, not simply for reflective philosophy or in terms of epistemology itself, but what is its meaning in the historical movement of humanity and as a part of a larger and more comprehensive experience? My thesis is perhaps sufficiently indicated in the mere taking of this point of view. It implies that the abstractness of the discussion of knowledge, its remoteness from everyday experience, is one of form, rather than of substance. It implies that the problem of knowledge is not a problem that has its origin, its value, or its destiny within itself. The problem is one which social life, the organized practice of mankind, has had to face. The seemingly technical and abstruse discussion of the philosophers results from the formulation and statement of the question.

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[3] From *Influence of Darwin on Philosophy*, etc., pp. 271-299.

I suggest that the problem of the possibility of knowledge is but an aspect of the question of the relation of knowing to acting, of theory to practice. The distinctions which the philosophers raise, the oppositions which they erect, the weary treadmill which they pursue between sensation and thought, subject and object, mind and matter, are not invented *ad hoc*, but are simply the concise reports and condensed formula of points of view and practical conflicts having their source in the very nature of modern life, conflicts which must be met and solved if modern life is to go on its way untroubled, with clear consciousness of what it is about. As the philosopher has received his problem from the world of action, so he must return his account there for auditing and liquidation.

More especially, I suggest that the tendency of all the points at issue to precipitate in the opposition of sensationalism and rationalism is due to the fact that sensation and reason stand for the two forces contending for mastery in social life: the radical and the conservative. The reason that the contest does not end, the reason for the necessity of the combination of the two in the resultant statement, is that both factors are necessary in action; one stands for stimulus, for initiative; the other for control, for direction.

We have not the remotest way of imagining what the outcome would finally have been if, at the time when the intellectual structure of the Christian church and the legal structure of the Roman Empire had got themselves thoroughly organized, the barbarians had not made their inroads and seized upon all this accumulated and consolidated wealth as their own legitimate prey. But this was what did happen. As a result, truths originally developed by the freest possible criticism and investigation became external, and imposed themselves upon the mass of individuals by the mere weight of authoritative law. The external, transcendental, and supernatural character of spiritual truth and of social control during the Middle Ages is naught but the mirror, in consciousness, of the relation existing between the eager, greedy, undisciplined horde of barbarians on one side, and the concentrated achievements of ancient civilization on the other. There was no way out save that the keen barbarian whet his appetite upon the rich banquet spread before him. But there was equally no way out so far as the continuity of civilization was concerned save that the very fullness and richness of this banquet set limits to the appetite, and finally, when assimilated and digested, it be transformed into the flesh and blood, the muscles and sinew of him who sat at the feast. Thus the barbarian ceased to be a barbarian and a new civilization arose.

But the time came when the work of absorption was fairly complete. The northern barbarians had eaten the food and drunk the wine of Græco-Roman civilization. The authoritative truth embodied in medieval state and church succeeded, in principle, in disciplining the untrained masses. Its very success issued its own death warrant. To say that it had succeeded means that the new people had finally eaten their way into the heart of the ideas offered them, had got from them what they wanted, and were henceforth prepared to go their own way and make their own living. Here a new rhythm of the movement of thought and action begins to show itself.

The beginning of this change in the swing of thought and action forms the transition from the Middle Ages to the modern times. It is the epoch of the Renaissance. The individual comes to a new birth and asserts his own individuality and demands his own rights in the way of feeling, doing, and knowing for himself. Science, art, religion, political life, must all be made over on the basis of recognizing the claims of the individual.

Pardon me these commonplaces, but they are necessary to the course of the argument. By historic fallacy we often suppose, or imagine that we suppose, that the individual had been present as a possible center of action all through the Middle Ages, but through some external and arbitrary interference had been weighted down by political and intellectual despotism. All this inverts the true order of the case. The very possibility of the individual making such unlimited demands for himself, claiming to be the legitimate center of all action and standard for all organization, was dependent, as I have already indicated, upon the intervening medievalism. Save as having passed through this period of tremendous discipline, and having gradually worked over into his own habits and purposes the truths embodied in the church and state that controlled his conduct, the individual could be only a source of disorder and a disturber of civilization. The very maintenance of the spiritual welfare of mankind was bound up in the extent to which the claim of truth and reality to be universal and objective, far above all individual feeling and thought, could make itself valid. The logical realism and universalism of scholastic philosophy simply reflect the actual subjection of the individual to that associated and corporate life which, in conserving the past, provided the principle of control.

The very logic of the relationship, however, required that the time come when the individual makes his own the objective and universal truths. He is now the incorporation of truth. He now has the control as well as the stimulus of action within himself. He is the standard and the end, as well as the initiator and the effective force of execution. Just because the authoritative truth of medievalism has succeeded, has fulfilled its function, the individual can begin to assert himself.

Hence the conception of progress as a ruling idea; the conception of the individual as the source and standard of rights; and the problem of knowledge, were all born together. Given the freed individual, who feels called upon to create a new heaven and a new earth, and who feels himself gifted with the power to perform the task to which he is called:—and the demand for science, for a method of discovering and verifying truth, becomes imperious. The individual is henceforth to supply control, law, and not simply stimulation and initiation. What does this mean but that instead of any longer receiving or assimilating truth, he is now to search for and create it? Having no longer the truth imposed by authority to rely upon, there is no resource save to secure the authority of truth. The possibility of getting at and utilizing this truth becomes therefore the underlying and conditioning problem of modern life. Strange as it may sound, the question which was formulated by Kant as that of the possibility of knowledge, is the fundamental political problem of modern life.

Science and metaphysics or philosophy, though seeming often to be at war, with their respective adherents often throwing jibes and slurs at each other, are really the most intimate allies. The philosophic movement is simply the coming to consciousness of this claim of the individual to be able to discover and verify truth for himself, and thereby not only to direct his own conduct, but to become an influential and decisive factor in the organization of life itself. Modern philosophy is the formulation of this creed, both in general and in its more specific implications. We often forget that the technical problem "*how* knowledge is possible," also means "how *knowledge* is possible"; how, that is, shall the individual be able to back himself up by truth which has no authority save that of its own intrinsic truthfulness. Science, on the other hand, is simply this general faith or creed asserting itself in detail; it is the practical faith at work engaged in subjugating the foreign territory of ignorance and falsehood step by step. If the ultimate outcome depends upon this detailed and concrete work, we must not forget that the earnestness and courage, as well as the intelligence and clearness with which the task has been undertaken, have depended largely upon the wider, even if vaguer, operation of philosophy.

Having made so many sweeping assertions I must venture one more. Fanciful and forced as it may seem, I would say that the sensational and empirical schools represent in conscious and reflective form the continuation of the principle of the northern and barbarian side of medieval life; while the intellectualist and the rationalist stand for the conscious elaboration of the principle involved in the Græco-Roman tradition.

The motive which has kept the sensationalist at work, which animated Hobbes and Locke, Hume and John Stuart Mill, Voltaire and Diderot, was a human not a scholastic one. It was the belief that only in sensation do we get any personal contact with reality, and hence, any genuine guarantee of vital truth. Thought is pale, and remote from the concrete stuff of knowledge and experience. It only formulates and duplicates; it only divides and recombines that fullness of vivid reality got directly and at first hand in sense experience. Reason, compared with sense, is indirect, emasculate, and faded.

Moreover, reason and thought in their very generality seem to lie beyond and outside the individual. In this remoteness, when they claim any final value, they violate the very first principle of the modern consciousness. What is the distinguishing characteristic of modern life, unless it be precisely that the individual shall not simply get, and reason about, truth in the abstract, but shall make it his own in the most intimate and personal way? He has not only to know the truth in the sense of knowing about it, but he must feel it. What is sensation but the answer to this demand for the most individual and intimate contact with reality? Show me a sensationalist and I will show you not only one who believes that he is on the side of concreteness and definiteness, as against washed-out abstractions and misty general notions: but also one who believes that he is identified with the cause of the individual as distinct from that of external authority.

The intellectualist, on the other hand, has endeavored to frame the structure of knowledge as a well-ordered economy, where reason is sovereign, where the permanent is the standard of reference for the changing, and where the individual may always escape from his own mere individuality and find support and reinforcement in a system of relations that lies outside of and yet gives validity to his own passing states of consciousness. Thus the rationalists hold that we must find in a universal intelligence a source of truth and guarantee of value that is sought in vain in the confused and flowing mass of sensations.

The rationalist, in making the concept or general idea the all-important thing in knowledge, believes himself to be asserting the interests of order as against destructive caprice and the license of momentary whim. He finds that his cause is bound up with that of the discovery of truth as the necessary instrument and method for action. Only by reference to the general and the rational can the individual find perspective, secure direction for his appetites and impulses, and escape from the uncontrolled and ruinous reactions of his own immediate tendency.

The concept, once more, in its very generality, in its elevation above the intensities and conflicts of momentary passions and interests, is the conserver of the experience of the past. It is the wisdom of the past put into capitalized and funded form to enable the individual to get away from the stress and competition of the needs of the passing moment. It makes the difference between barbarism and civilization, between continuity and disintegration, between the sequence of tradition that is the necessity of intelligent thought and action, and the random and confused excitation of the hour.

The issue is still a practical, a social one, and the two schools stand for certain one-sided factors of social life. If we have on one side the demand for freedom, for personal initiation into experience, for variety and progress, we have on the other side the demand for general order, for continuous and organized unity, for the conservation of the dearly bought resources of the past. This is what I mean by saying that the sensationalist abstracts in conscious form the position and tendency of the

Germanic element in modern civilization, the factor of appetite and impulse, of keen enjoyment and satisfaction, of stimulus and initiative. Just so the rationalist erects into conscious abstraction the principle of the Græco-Roman world, that of control, of system, of order and authority.

The strength of each school lies in the weakness of its opponent. The more the sensationalist appears to succeed in reducing knowledge to the associations of sensation, the more he creates a demand for thought to introduce background and relationship. The more consistent the sensationalist, the more openly he reveals the sensation in its own nakedness crying aloud for a clothing of value and meaning which must be borrowed from reflective and rational interpretation. On the other hand, the more reason and the system of relations that make up the functioning of reason are magnified, the more is felt the need of sensation to bring reason into some fruitful contact with the materials of experience. Reason must have the stimulus of this contact in order to be incited to its work and to get materials to operate with. The cause, then, why neither school can come to rest in itself is precisely that each abstracts one essential factor of conduct.

The demand for science and philosophy was the demand for truth and a sure standard of truth which the new-born individual might employ in his efforts to build up a new world to afford free scope to the powers stirring within him. The urgency and acuteness of this demand caused, for the time being, the transfer of attention from the nature of practice to that of knowledge. The highly theoretical and abstract character of modern epistemology, combined with the fact that this highly abstract and theoretic problem has continuously engaged the attention of thought for more than three centuries, is, to my mind, proof positive that the question of knowledge was for the time being the point in which the question of practice centered, and through which it must find outlet and solution.

We return, then, to our opening problem: the meaning of the question of the possibility of knowledge raised by Kant a century ago, and of his assertion that sensation without thought is blind, thought without sensation empty. Once more I recall to the student of philosophy how this assertion of Kant has haunted and determined the course of philosophy in the intervening years—how his solution at once seems inevitable and unsatisfactory. It is inevitable in that no one can fairly deny that both sense and reason are implicated in every fruitful and significant statement of the world; unconvincing because we are after all left with these two opposed things still at war with each other, plus the miracle of their final combination.

When I say that the only way out is to place the whole modern industry of epistemology in relation to the conditions that gave it birth and the function it has to fulfil, I mean that the unsatisfactory character of the entire neo-Kantian movement lies in its assumption that knowledge gives birth to itself and is capable of affording its own justification. The solution that is always sought and never found so long as we deal with knowledge as a self-sufficing purveyor of reality, reveals itself when we conceive of knowledge as a statement of action, that statement being necessary, moreover, to the successful ongoing of action.

Admitting that the practical problem of modern life is the maintenance of the moral values of civilization through the medium of the insight and decision of the individual, the problem is foredoomed to futile failure save as the individual in performing his task can work with a definite and controllable tool. This tool is science. But this very fact, constituting the dignity of science and measuring the importance of the philosophic theory of knowledge, conferring upon them the religious value once attaching to dogma and the disciplinary significance once belonging to political rules, also sets their limit. The servant is not above his master.

When a theory of knowledge forgets that its value rests in solving the problem out of which it has arisen, viz., that of securing a method of action; when it forgets that it has to work out the conditions under which the individual may freely direct himself without loss to the historic values of civilization—when it forgets these things it begins to cumber the ground. It is a luxury, and hence a social nuisance and disturber. Of course, in the very nature of things, every means or instrument will for a while absorb attention so that it becomes the end. Indeed it is the end when it is an indispensable condition of onward movement. But when once the means have been worked out they must operate as such. When the nature and method of knowledge are fairly understood, then interest must transfer itself from the possibility of knowledge to the possibility of its application in life.

PHILOSOPHY AS VISION [4]

Volumes have been written about each term of our theme. What *is* civilization? history? philosophy? Yet time passes, and ambiguities and complexities cannot be eliminated by definition: we can only circumvent them by begging questions. But as to one of the terms at least, namely, philosophy, we shall frankly make what is begged explicit. A statement of the relations of philosophy to the history of civilization will, after all, only expound, in some indirect manner, the view of philosophy to which one is already committed. Unless this fact is faced, we shall not only beg the issue, but we shall deceive ourselves into thinking that we are setting forth the conclusions of an original inquiry, undertaken and executed independently of our own philosophical conceptions.

As for myself, then, the discussion is approached with the antecedent idea that philosophy, like politics, literature and plastic arts, is itself a phenomenon of human culture. Its connection with social history, with civilization, is intrinsic. There is current among those who philosophize the conviction that, while past thinkers have reflected in their systems the conditions and perplexities of their own day, present-day philosophy in general and one's own philosophy in particular, is emancipated from the influence of that complex of institutions which forms culture. Bacon, Descartes, Kant each thought with fervor that he was founding philosophy anew because he was placing it securely upon an exclusive intellectual basis, exclusive, that is, of everything but intellect. The movement of time has revealed the illusion; it exhibits as the work of philosophy the old and ever new undertaking of adjusting that body of traditions which constitute the actual mind of man to scientific tendencies and political aspirations which are novel and incompatible with received authorities. Philosophers are parts of history, caught in its movement; creators perhaps in some measure of its future, but also assuredly creatures of its past.

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[4] From "The Rôle of Philosophy in the History of Civilization," an address before the *Sixth International Congress of Philosophy,* published in the *Proceedings,* pp. 536-542.

Those who assert in the abstract definition of philosophy that it deals with eternal truth or reality, untouched by local time and place, are forced to admit that philosophy as a concrete existence is historical, having temporal passage and a diversity of local habitations. Open your histories of philosophy, and you find written throughout them the same periods of time and the same geographical distributions which provide the intellectual scheme of histories of politics, industry or the fine arts. I cannot imagine a history of philosophy which did not partition its material between the occident and the orient; which did not find the former falling into ancient, medieval and modern epochs; which in setting forth Greek thought did not specify Asiatic and Italian colonies and Athens. On the other hand, those who express contempt for the enterprise of philosophy as a sterile and monotonous preoccupation with unsolvable or unreal problems, cannot, without convicting themselves of Philistinism, deny that, however it may stand with philosophy as a revelation of eternal truths, it is tremendously significant as a revelation of the predicaments, protests and aspirations of humanity.

The two views of the history of thought are usually proffered as unreconcilable opposites. According to one, it is the record of the most profound dealings of the reason with ultimate being; according to the other, it is a scene of pretentious claims and ridiculous failures. Nevertheless, there is a point of view from which there is something common to the two notions, and this common denominator is more significant than the oppositions. Meaning is wider in scope as well as more precious in value than is truth, and philosophy is occupied with meaning rather than with truth. Making such a statement is dangerous; it is easily misconceived to signify that truth is of no great importance under any circumstances, while the fact is that truth is so infinitely important when it is important at all, namely, in records of events and descriptions of existences, that we extend its claims to regions where it has no jurisdiction.

But even as respects truths, meaning is the wider category; truths are but one class of meanings, namely, those in which a claim to verifiability by their consequences is an intrinsic part of their meaning. Beyond this island of meanings which in their own nature are true or false lies the ocean of meanings to which truth and falsity are irrelevant. We do not inquire whether Greek civilization was true or false, but we are immensely concerned to penetrate its meaning. We may indeed ask for the truth of Shakespeare's Hamlet or Shelley's Skylark, but by truth we now signify something quite different from that of scientific statement and historical record.

In philosophy we are dealing with something comparable to the meaning of Athenian civilization or of a drama or a lyric. Significant history is lived in the imagination of man, and philosophy is a further excursion of the imagination into its own prior achievements. All that is distinctive of man, marking him off from the clay he walks upon or the potatoes he eats, occurs in his thought and emotions, in what we have agreed to call consciousness. Knowledge of the structure of sticks and stones, an enterprise in which, of course, truth is essential, apart from whatever added control it may yield, marks in the end but an enrichment of consciousness, of the area of meanings. Were significance identical with existence, were values the same as events, idealism would be the only possible philosophy. Thus scientific thought itself is finally but a function of the imagination in enriching life with the significance of things; it is of its peculiar essence that it must also submit to certain tests of application and control.

It is commonplace that physically and existentially man can but make a superficial and transient scratch upon the outermost rind of the world. It has become a cheap intellectual pastime to contrast the infinitesimal pettiness of man with the vastnesses of the stellar universes. Yet all such comparisons are illicit. We cannot compare existence and meaning; they are disparate. The characteristic life of man is itself the meaning of vast stretches of existences, and without it the latter have no value or significance. There is no measure of physical existence and conscious experience because the latter is the only measure there is for the former. The significance of being, though not its existence, is the emotion it stirs, the thought it sustains.

It follows that there is no specifiable difference between philosophy and its rôle in the history of civilization. Discover and define some characteristic, some unique, function in civilization, and you have defined philosophy itself. To try to define philosophy in any other way is to search for a will-of-the-wisp; the conceptions which result are of purely private interpretation, for they only exemplify the particular philosophies of their authorship and interpretation. Take the history of philosophy from whatever angle and in whatever cross-section you please, Indian, Chinese, Athenian, the Europe of the twelfth or the twentieth century, and you find a load of traditions proceeding from an immemorial past. You find certain preoccupying interests that appear hypnotic in their rigid hold upon imagination and you also find certain resistances, certain dawning rebellions, struggles to escape and to express some fresh value of life. The preoccupations may be political and artistic as in Athens; they may be economic and scientific as today. But in any case, there is a certain intellectual work to be done; the dominant interest working throughout the minds of masses of men has to be clarified, a result which can be accomplished only by selection, elimination, reduction and formulation; it has to be intellectually forced, exaggerated in order to be focused; to be, that is, intellectually in consciousness, since all clear consciousness by its very nature marks a wrenching of something from its subordinate place to confer upon it a centrality which is existentially absurd.

Where there are sufficient depth and range of meanings for consciousness to arise at all, there is a function of adjustment, of reconciliation of the ruling interest of the period with preoccupations which had a different origin and an irrelevant meaning. Consider, for example, the uneasy, restless effort of Plato to adapt his new mathematical insights and his political aspirations to the traditional habits of Athens; the almost humorously complacent union of Christian supernaturalism in the Middle Ages with the naturalism of pagan Greece; the still fermenting effort of the recent age to unite the new science of nature with inherited classic and medieval institutions. The life of all thought is to effect a junction at some point of the new and the old, of deep-sunk customs and unconscious dispositions, brought to the light of attention by some conflict, with newly emerging directions of activity. Philosophies which emerge at distinctive periods define the larger patterns of continuity which are woven in effecting the longer enduring junctions of a stubborn past and an insistent future.

Philosophy thus sustains the closest connection with the history of culture, with the succession of changes in civilization. It is fed by the streams of tradition, traced at critical moments to their sources in order that the current may receive a new direction; it is fertilized by the ferment of new inventions in industry, new explorations of the globe, new discoveries in science. But philosophy is not just a passive reflex of civilization that persists through changes, and that changes while persisting. It is itself a change; the patterns formed in this junction of the new and the old are prophecies rather than records; they are policies, attempts to forestall subsequent developments.

The intellectual registrations which constitute a philosophy are generative just because they are selecting and eliminating exaggerations. While purporting to say that such and such is and always *has* been the purport of the record of nature, in effect they proclaim that such and such *should* be the significant value to which mankind should loyally attach itself. Without evidence adduced in its behalf such a statement may seem groundless. But I invite you to examine for yourselves any philosophical idea which has had for any long period a significant career, and find therein your own evidence. Take, for example, the Platonic patterns of cosmic design and harmony; the Aristotelian perpetually recurrent ends and grooved potentialities; the Kantian fixed forms of intellectual synthesis; the conception of nature itself as it figured in seventeenth and eighteenth century thought. Discuss them as revelations of eternal truth, and something almost childlike or something beyond possibility of decision enters in; discuss them as selections from the existing culture by which to articulate forces which the author believed should and would dominate the future, and they become preciously significant aspects of human history.

Thus philosophy marks a change of culture. In forming patterns to be conformed to in future thought and action, it is additive and transforming in its rôle in the history of civilization. Man states anything at his peril; once stated, it occupies a place in a new perspective; it attains a permanence which does not belong to its existence; it enters provokingly into wont and use; it points in a troubling way to need of new endeavors. I do not mean that the creative element in the rôle of philosophy is necessarily the dominant one; obviously its formulations have been often chiefly conservative, justificatory of selected elements of traditions and received institutions. But even these preservative systems have had a transforming if not exactly a creative effect; they have lent the factors which were selected a power over later human imagination and sentiment which they would otherwise have lacked. And there are other periods, such as those of the seventeenth and eighteenth centuries in Europe, when philosophy is overtly revolutionary in attitude. To themselves, the turn was just from complete error to complete truth; to later generations looking back, the alteration in strictly factual content does not compare with that in desire and direction of effort.

Of the many objections which may be brought against the conception that philosophy not only *has* a rôle, but that it *is* a specifiable rôle in the development of human culture, there are two misconceptions which I wish to touch upon. What has been said, taken without qualifying additions, might suggest a picture of a dominant system of philosophy at each historic period. In fact there are diverse currents and aspirations in almost every historic epoch; the divergence of philosophic systems instead of being a reproach (as of course it is from the standpoint of philosophy as a revelation of truth) is evidence of sincerity and vitality. If the ruling and the oppressed elements in a population, those who wished to maintain the *status quo* and those concerned to make changes, had when they become articulate the same philosophy, one might well be sceptical of its intellectual integrity.

The other point is much more important. In making a distinction between meaning and truth and asserting that the latter is but one type of meaning, important under definite conditions, I have expressed the idea as if there might be in the processes of human life meanings which are wholly cut off from the actual course of events. Such is not the intent; meanings are generated and in some degree sustained by existence. Hence they cannot be wholly irrelevant to the world of existence; they all have some revelatory office which should be apprehended as correctly as possible. This is true of politics, religion and art as well as of philosophy. They all tell something of the realm of existence. But in all of them there is an exuberance and fertility of meanings and values in comparison with which correctness of telling is a secondary affair, while in the function termed science accuracy of telling is the chief matter.

In the historic rôle of philosophy, the scientific factor, the element of correctness, of verifiable applicability, has a place, but it is a negative one. The meanings delivered by confirmed observation, experimentation and calculation, scientific facts and principles in other words, serve as tests of the values which tradition transmits and of those which emotion suggests. Whatever is not compatible with them must be eliminated in any sincere philosophizing. This fact confers upon scientific knowledge an incalculably important office in philosophy. But the criterion is negative; the exclusion of the inconsistent is far from being identical with a positive test which demands that only what has been scientifically verifiable provide the entire content of philosophy. It is the difference between an imagination that acknowledges its responsibility to meet the logical demands of ascertained facts, and a complete abdication of all imagination in behalf of a prosy literalism.

Finally it results from what has been said that the presence and absence of native born philosophies is a severe test of the depth of unconscious tradition and rooted institution among any people, and of the productive force of their culture. For sake of brevity, I may be allowed to take our own case, the case of civilization in the United States. Philosophy, we have been saying, is a conversion of such culture as exists into consciousness, into imagination which is logically coherent and is not incompatible with what is factually known. But this conversion is itself a further movement of civilization; it is not something performed upon the body of habits and tendencies from without, that is, miraculously. If American civilization does not eventuate in an imaginative formulation of itself, if it merely rearranges the figures already named and placed—in playing an inherited European game—that fact is itself the measure of the culture which we have achieved. A deliberate striving for an American Philosophy as such would be only another evidence of the same emptiness and impotency.

There are energy and activity, among us, enough and to spare. Not an inconsiderable part of the vigor that once went into industrial accomplishment now finds its way into science; our scientific "plant" is coming in its way to rival our industrial plants. Especially in psychology and the social sciences an amount of effort is put forth which is hardly equalled in any one other part of the world. He would be a shameless braggart who claimed that the result is as yet adequate to the activity. What is the matter? It lies, I think, with our lack of imagination in generating leading ideas. Because we are afraid of speculative ideas, we do, and do over and over again, an immense amount of dead, specialized work in the region of "facts." We forget that facts are only data; that is, are only fragmentary, uncompleted meanings, and unless they are rounded out into complete ideas—a work which can only be done by hypotheses, by a free imagination of intellectual possibilities—they are as helpless as are all maimed things and as repellent as are needlessly thwarted ones.

Please do not imagine that this is a plea in disguise for any particular type of philosophizing. On the contrary, any philosophy which is a sincere outgrowth and expression of our own civilization is better than none, provided it speaks the authentic idiom of an enduring and dominating corporate experience. If we are really, for instance, a materialistic people, we are at least materialistic in a new fashion and on a new scale. I should welcome then a consistent materialistic philosophy, if only it were sufficiently bold, and in the degree in which, despite attendant esthetic repulsiveness, it marked the coming to consciousness of a group of ideas, thus formulating a coming to self-consciousness of our civilization. Thereby it would furnish ideas, supply an intellectual polity, direct further observations and experiments, and organize their results on a grand scale. As long as we worship science and are afraid of philosophy we shall have no great science; we shall have a lagging and halting continuation of what is thought and said elsewhere.

As far as any plea is implicit in what has been said, it is, then, a plea for the casting off of that intellectual timidity which hampers the wings of imagination, a plea for speculative audacity, for more faith in ideas,—for sloughing off a cowardly reliance upon those partial ideas to which we are wont to give the name of facts. I have given to philosophy a more humble function than that which is often assigned it. But modesty as to its final place is not incompatible with boldness in the maintenance of that function, humble as it may be. A combination of such modesty and courage affords the only way I know of in which the philosopher can look his fellow man in the face with frankness and with humanity.

FIRST AND LAST WORD [5]

Sub specie æternitatis? or *sub specie generationis?* I am susceptible to the esthetic charm of the former ideal—who is not? There are moments of relaxation: there are moments when the demand for peace, to be let alone and relieved from the continual claim of the world in which we live that we be up and doing something about it, seems irresistible; when the responsibilities imposed by living in a moving universe seem intolerable. We contemplate with equal mind the thought of the eternal sleep. But, after all, this is a matter in which reality and not the philosopher is the court of final jurisdiction. Outside of philosophy the question seems fairly settled; in science, in poetry, in social organization, in religion—wherever religion is not hopelessly at the mercy of a Frankenstein philosophy which it originally called into being as its own slave. Under such circumstances there is danger that the philosophy which tries to escape the form of generation by taking refuge under the form of eternity will only come under the form of a by-gone generation. To try to escape from the snares and pitfalls of time by recourse to traditional problems and interests—rather than that, let the dead bury their own dead. Better it is for philosophy to err in active participation in the living struggles and issues of its own age and times than to maintain an immune monastic impeccability, without relevancy and bearing in the generating ideas of its contemporary present. In the one case, it will be respected, as we respect all virtue that attests its sincerity by sharing in the perplexities and failures, as well as in the joys and triumphs, of endeavor. In the other case, it bids fair to share the fate of whatever preserves its gentility, but not its activity, in descent from better days; namely, to be snugly ensconced in the consciousness of its own respectability.

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[5] From "Does Reality Possess Practical Character?" in *Essays in Honor of William James,* pp. 79-80; *Experience and Nature,* pp. 419-421.

Men move between extremes. They conceive of themselves as gods, or feign a powerful and cunning god as an ally who bends the world to do their bidding and meet their wishes. Disillusionized, they disown the world that disappoints them; and hugging ideals to themselves as their own possession, stand in haughty aloofness apart from the hard course of events that pays so little heed to our hopes and aspirations. But a mind that has opened itself to experience and that has ripened through its discipline knows its own littleness and impotencies; it knows that its wishes and acknowledgments are not final measures of the universe whether in knowledge or in conduct, and hence are, in the end, transient. But it also knows that its juvenile assumption of power and achievement is not a dream to be wholly forgotten. It implies a unity with the universe that is to be preserved. The belief, and the effort of thought and struggle which it inspires are also the doing of the universe, and they in some way, however slight, carry the universe forward. A chastened sense of our importance, apprehension that it is not a yard-stick by which to measure the whole, is consistent with the belief that we and our endeavors are significant not only for themselves but in the whole.

Fidelity to the nature to which we belong, as parts however weak, demands that we cherish our desires and ideals till we have converted them into intelligence, revised them in terms of the ways and means which nature makes possible. When we have used our thought to its utmost and have thrown into the moving unbalanced balance of things our puny strength, we know that though the universe slay us still we may trust, for our lot is one with whatever is good in existence. We know that such thought and effort is one condition of the coming into existence of the better. As far as we are concerned it is the only condition, for it alone is in our power. To ask more than this is childish; but to ask less is a recreance no less egotistic, involving no less a cutting of ourselves from the universe than does the expectation that it meet and satisfy our every wish. To ask in good faith as much as this from ourselves is to stir into motion every capacity of imagination, and to exact from action every skill and bravery.

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